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THE SCHOOL JOURNAL

NEW YORK AND CHICAGO.

VOLUME XLVIII., No. 1.
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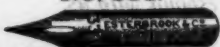
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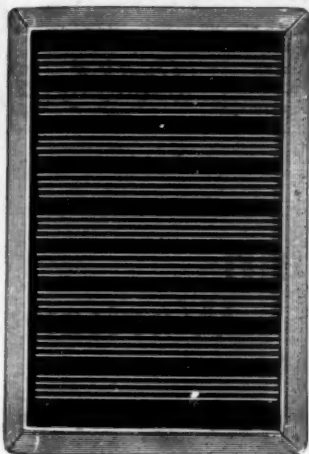


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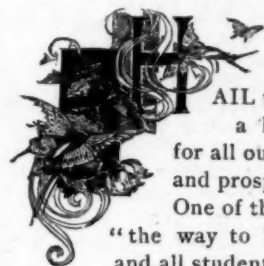
For the Week Ending January 6.

No. 1

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The business department of THE JOURNAL is on page 27.

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HAIL to the New Year! May it be a happy and a prosperous one for all our readers. How to be happy and prosperous? Is there any method? One of those wise old Greeks said that "the way to be rich is to have few wants," and all students of ethics are learning that self-abnegation is the true secret of peace. The more we depart from the direct pursuit of happiness, the nearer we approach its goal. Happiness is reactionary. In giving it only do we fully receive it. It is like our own countenance—we see it only by reflection. We wish our friends a growing realization of this great truth; but we wish them also a goodly share in the favors which the Goddess of Good Luck has it in her mind to scatter during the coming year.

No persons have more to do with making happiness for others than teachers. Would you make one happier, teach him something that he does not know; give him higher motives than he has felt in the past. Those who seek to make the world better, and think deeply, begin by establishing schools. "More light," were the prophetic dying words of the immortal Goethe. "This doorway leads to happiness," might properly be inscribed over the entrance to every good school. Let the teacher rejoice that he is one of a great army engaged in fulfilling that wish so often uttered, "A Happy New Year."

This is the season of good resolutions. The children make them and their teachers make them. One of the good resolves we most need to make is to *keep our good resolves*. The tenacity of moral intention in childhood is very weak. It needs pleasant stimulus from without to grow upon. Interesting examples of successful self-reformers afford appropriate stimulus. Some of these can be taken from history, but they must be made *interesting*. Ethically speaking, there is more history in good novels than in chronologies. One of the "Glen Morris" series of story books, "Jessie Carleton," stimulated a little girl known to the writer to a victorious battle with her besetting sin, which was to begin new projects before old ones were finished. Under Jessie's infectious example, task after task that had lingered long was finished and put away, while new plans, however inviting, were sternly denied a hearing until their turns came. Every year of childhood might have its Bible, if we could always find the right story for the right time.

But the teacher wants her stimulus, too. This she must provide herself, knowing her own needs. Some teachers enumerate to themselves their own besetting sins and put in the looking-glass, where they can glance

at it as the back hair assumes its daily coils, something like this:

Don't scold.
Don't forget to smile.
Remember, children act as they feel—therefore *reach their feelings*.
The moment you feel impatient, *drop your voice*; never raise it except to express gladness or admiration.
You are not a child; control yourself and be well-behaved at all times remember, the children are watching you.

The winter brings with it to thousands of teachers the old problem of how to keep the air of the school-room fresh without draughts. Where there are ventilating shafts, the warm air from the school-room will make an ascending current through these shafts without the aid of fans or any form of coaxing. All it asks is a way out. Open the *lower* ventilator. Keep the upper closed. The warm air, wherever it enters, rises in a column to the ceiling. Finding itself shut in there, it spreads over the room and descends upon the pupils as fast as the colder, fouler air, heavier with carbonic acid, is permitted to escape from below. This plan is better than all the opening of windows that can be practiced. Where stoves are used, the fresh air should be admitted under the stove and some *low-down* exit for the foul air provided.

"I don't want to be lifted," said a young teacher, lifting her nose very high at the suggestion that a certain article in an educational paper would do her good. This is not true. There is no human being of average intelligence and morality that doesn't want to lift and be lifted. This very teacher is known to have little ways of her own by which she attempts to lift her children to better forms of behavior. If she will turn her eyes in the right direction, and accept the help and inspiration Heaven sends her, she will become a lifting teacher; but while she even thinks she "doesn't want to be lifted," her efforts to lift will avail very, very much less than they ought to.

There should not be one engaged in the sacred work of teaching who does not want to increase his influence for good during the year 1894, and there is no better help and inspiration in working out such an aim than THE SCHOOL JOURNAL. True, excellent teaching has been done by those who never saw this paper, but it has, nevertheless, helped thousands to higher planes of success. There is no work to-day that is being more carefully scrutinized than that of the teacher. "Is he up to the times?" is the question asked by a public that has grown thoroughly discontented with machine methods. There is always a smack of medievalism about the work of a teacher who takes no educational paper. The modern teacher must keep in touch with modern educational thought. There is no better medium through which to become acquainted with the ever brightening practice of the times than THE SCHOOL JOURNAL, which aims constantly to be "practical" and to give the best.

Primary Science Lessons in the City.

Passing from the country, with its freshness and abundance, to the dusty city, one would naturally expect to find great difficulties in the way of proper science work. Lack of material, of opportunity, and of place suited to such work would promptly present themselves, and to many end the whole matter.

But the happy rooms and successful work of more than one teacher of my acquaintance, assure me that these difficulties are not insurmountable, even under the present unfavorable conditions.

That I may lend a helping hand to increase these practical demonstrations, and hasten the time when those in authority shall render that systematic aid which would cost so little and accomplish so much, is the purpose of this article.

There are several things I shall take for granted:

First.—Teachers earnestly desire the best good of their pupils.

Second.—A clear and ready apprehension of the words of the printed page, is of vital importance to good scholarship.

Pupils *must*, in the truest sense, be *good readers*.

Third.—Words are symbols and are only of value as they correspond to correct mental concepts.

Fourth.—The preponderance of nature (if accurate) in the modern reader, geography, and drawing book, is *wise*, and in the line of the child's normal development.

Fifth.—The city child is especially in need of *objects* to see and handle, in order that his concepts may be correct and his interest sustained. Pictures are excellent, but can only partially meet the need.

What can be found in the city and where?

Placing things in nature's own sequence, we note:

(1) *The Sun.* With its heat, light, and chemical power. Notice how the noon shadows are daily creeping farther and farther into the room and apply it to geography.

Note the shortening days and lengthening nights.

(2) *The Stars.* Constellations can be drawn and found "straight out" some street at some certain hour (early enough for a child).

The pole star is always in the north with its attendant constellations.

(3) *The sister planets* of our Earth will delight and instruct.

(4) *The Moon.* Her light, heat (?), and phases.

How did we get the word "month" and its meaning?

What are the "faces" in the moon?

How can we see "the old moon in the young moon's arms"?

Be sure and call attention to any available *eclipse*.

Children take especial interest in the heavens, and are wonderfully helped by a very simple acquaintance.

The Air. Why we breathe. Need of its purity. Simple directions and experiments illustrating proper ventilation and danger of draughts.

Winds. Causes of and the benefit they are to the city dwellers.

The work they do for us on the water and on land.

Dust. What is it. Its omnipresence.

Smoke. Where it comes from. What it is.

Coal. Kinds, use, how obtained, its origin.

Coke. Where made. Why no flame.

Gas. How made and uses. Dangers connected with it.

Light. Oil. Kinds of oil and origin. Dangers from some. Candles. How made and of what. Electric. Connect with the excited rubber comb; the snapping of the cat's fur and woolen garments; the lighting of gas by the finger after scuffling over dry carpet, etc., etc.

Caution about the danger of meddling with wires.

Minerals. Common sorts brought and studied as to points of difference.

Stone. Class, gather and learn kinds and uses.

Pebbles. Where found and how made.

Sand. What is sand and how made.

Clay. How made. Its plastic nature and how molded into.

Bricks. How made and burnt. What colors and why?

Tile. Kinds and uses.

Crockery. Made of? how? where?

Lime. How made.

Mortar. Materials and making. Use.

Metals. As many kinds as possible learned and characteristics known.

The above is the *mineral* side. As to plants, we have:

Trees. Learn to know any which are available.

Encourage the children to examine them and describe, bringing specimens of leaves, buds or fruits to verify their work.

Woods. Children bring pieces and learn to know the peculiarities of each sort.*

Apply to furniture, dishes, etc.

Lumber. Learn the meaning of "joists," "timbers," "sills," "floorings," "2x4," "2x6," etc., etc. On the end of large sticks look for the private marks of the logging camps; which will introduce the whole subject of "pinery," "camp," saw-mill, etc., etc.

Barks. Birch-bark, tan-bark, and for geography procure large specimens from the wholesale druggist of barks used in medicine, for dyeing, etc.

Roots. Many kinds can be found at the market, or in the vacant lots.

Stems. Both underground (as potato, etc.), and above ground (as asparagus), can be had in the market; to which add the *corn* (gladiolus and crocus), and bulb, to be had of seedsmen.

Leaves. Besides those of trees and the plants in waste lots. Florists are very kind in helping to get such material for the children.

Flowers must be purchased, unless some kindly greenhouse or the park authorities can be interested, as will often prove the case. The day is not far distant when the resources of our parks and public greenhouses will become available for such purposes and much that now goes to waste become an important factor in aiding the schools and thereby greatly increasing the attractiveness of the parks themselves.

The increased expense to both parks (for raising and saving) and school authorities (for distributing) would be small, beyond a certain amount of planning and forethought.

Fruits are abundant and cheap. Let pupils bring them and the study is delightful.

Seeds. Get all the children can gather and then add such as friends in the country will donate.

Seedsmen will sell "old" seed—unfit to send out—at a cheap price.

As to animals.—Parks often show rare collections.

Sparrows and *Pigeons* are abundant.

Birds of passage often get lost on their migrations and are found in lots and alleys or throng the parks.

Game in the markets and meat at the stalls can be studied.

Fish can frequently be seen in the markets and the common sorts will be easily used to illustrate points in structure or use. The scales of the larger ones will make interesting lessons.

The Products of Animals. Milk, butter, cheese, leather, glue, horn, and bone in combs, buttons, etc., hair and wool in fabrics, furs, etc., are abundant and serviceable.

Shells are not rare and those of oyster and clam can be easily had of dealers or eating houses. By adding some univalve, almost a complete set for study is at hand.

Insects. Fleas, mosquitoes, and cockroaches are only too plenty. Butterflies and mosquitohawks are frequently bewildered and lost in the city. Caterpillars feed on the trees and many cocoons can be seen and gathered by the boys, to keep in reference to the silkworm.

Man. Rare opportunities belong to the city child to see different nationalities of men and observe their dress and customs. Materials for fabrics, etc., etc., can be easily had and processes of manufacture observed.

* A collection of from twenty-five to thirty named sorts can be had of dealers in scroll-saw work for a few cents.

But I must not further specify—enough has been said to show the abundance of material easily accessible. As to when time can be found for this work and a place to do it in—I would add a word. No "time" nor "place" beyond that of the ordinary school is needed.

Read your reader and geography *through* before work is begun; and as you find any object referred to which can under any possibility be gotten or any experiment which may be helpful, note it in pencil in the margin and make a list in some note-book of the material or apparatus required.

Then gather these things as soon as possible and put away in boxes, etc., so arranged as to be instantly found when the need arises. By looking ahead hardly a point need be spoken of, which cannot be made clear, and the interest (and order) of the pupils will reward you.

This hap-hazard work is not the *best* that can be done, but all I would advise for the beginning.

As interest develops in the class, and skill and fertility of resource in the teacher, more and better work will grow up and ways and time for it come.

—*Kindergarten Magazine.*

German Method in Primary Number.

(Conclusion of paper read by Miss Julia A. White before a meeting of teachers. The first part was in *THE JOURNAL* of December 2.)

While objects are used during the first year there should not be any variety, as the child's mind would thus be directed to the different objects rather than held to the thought of the relations of the numbers themselves.

For instance, in developing the number four, if I should show the children four blocks, apples, tops, marbles, and dolls, the minds would be so occupied with the variety of objects and the desire to obtain them for themselves, that it would be almost impossible to hold the thought to the pure number which is most essential. After a child has a number well fixed, many objects should be referred to by way of application.

The pure number—by pure number I mean simply the abstract number in all its relations without any reference to concrete problems,—the pure number must be first learned, then applied to things in order to fix it in the mind. There should be no haste, but an infinite amount of patience, as the simplest statements call for many repetitions. A number is never thoroughly taught till the child can make neatly and quickly the figure which stands for the number.

The operations in any step consist simply in comparing and measuring what has been gained in the preceding steps with that which is new.

In many cases teachers would think it folly to spend much time on the number *one*, assuming that every little one is familiar with it before entering the school-room, but let it be remembered that the child is to *begin* the study of numbers and advance step by step, the *one* being assuredly the first step. The development of the number one forms ample opportunity for much drill in accurate statement and careful observation.

If any teacher thinks for a moment that she can go before her class and present a lesson founded on this method in a bright and attractive manner without the most careful preparation, the work of the class will, before very long, convince her that more time spent by herself would save a great deal of needless repetition and unsuccessful work.

In this method there is the greatest rigidity followed in the development of every number. The *pure number* must be first developed, then measured and compared with all numbers which have preceded it, unless the number is quite large; then it should be measured with all its factors and many of the important numbers preceding. This should be followed by much rapid work, which is largely oral, followed again by combining, and last, when the number is well understood, we have the applied number. Here is a very fruitful field, as there is nothing more helpful to the child than his application of the numbers he is using to every-day things.

I have tried both the old and the new quite thoroughly, I believe, and were I compelled to go back to the old table method I should consider it the greatest injury both to myself and to my pupils; then the child was driven to his work, which was mere drudgery to him. We know how distasteful was the task of committing, parrot fashion, so many tables to memory; it was only learning so many dry facts with nothing of interest to fix them in our minds, whereas, in this method the child does the work from a liking for it. Why, when my children see that we are going to have a new number, their eyes dance, they are all on the alert, and it is like having some new plaything, and they are so eager in their discoveries that they vie with each other to be on their feet first to tell what they have found. It is just a delight to them, and the best of it is that what they find for themselves they remember, and they know how to use it, too.

Robert Quick says: "The living teacher has hope, the hope of doing better; his great desire is to know the best that has been thought and done; his great object is to bring his own thought and practice nearer to it."

Recess or no Recess.

For relaxation, there is nothing that can take the place of play. Primary children should be freed from discipline once at least during each session. The teacher should be present at these recesses and should endeavor to put intelligence into the play of the children, which is often aimless. It is a splendid time to study the social and artistic impulses of children. The little artists endeavor to have a perfect game; the little Vandals love to break up a game; the little sloven will leave it unfinished or destroy it with some negligence of its laws; the little crank will spoil it by some freak; the timid will watch it from the outside; the unsocial will hug the corners of the play-ground.

The last named class of children should be the teacher's especial charge. Children who play should be left to play as they list. Those who do not should be taught to play. Let the teacher gather these children together and teach them games and interest the leaders of the playground in them. Draw in the timid and repress the Vandals. The games taught should not be those already popular among the children, but something that will add to the resources of all. Do not spend this precious time in walking up and down and waiting for the bell to ring. Waiting is hard work. You can enjoy the recess if you will.

Many unique primer methods have been devised in Europe to modify or reform the spelling methods, beginning as early as 1534 with Ickelsamer's device of placing the picture of an animal, its printed name, and the letter whose sound was most like the animal's voice or cry, in parallel columns. Against the picture of a dog, *e. g.*, was placed the "growling" *r*. Against a bird, the "twittering" *z*; with a lamb, *a*, etc. The children must analyze the words phonetically, and before they saw them draw the sounds upon the board. The later, but more widely current, method of associating *a* with apple, *b* with boy, etc., was supplemented by utilizing the lingering final sound, and teaching *b* with tub, *t* with rat, etc. Another interjectional-imitative method, suggested by Neuman in 1832, and lately modified and psychologically defended by Oehlwein, places beside the letter *m* a cow just beginning to low; with *r*, a rapidly-moving post-wagon and the winding of a clock are pictured; with *a*, a crying baby and a crow; with *o*, a falling snow man, and the children exclaiming, Oh! with *f*, a smith at his bellows, the sound of which the children may imitate; with *sch*, children driving away hens, etc. By another method, red letters were printed on blackboard and slate, to be exactly covered by the children's chalk and pencil.

—*G. Stanley Hall.*

PRIMARY METHODS

Combined Method of Teaching Reading. V.

By ELLEN E. KENYON.

THE MECHANICS.—FROM SCRIPT TO PRINT.

The fifth month should bring at least the beginning of a need for extended sources of information. The observation work has thus far been supplemented only by what the teacher has told or read to the pupils in connection with their studies. The time is at hand when a profitable form of silent work will be collateral reading on these subjects to be found in primers, first readers, Seaside and Wayside, and other books adapted to very young readers. It is time to learn print.

One thing at a time.—New form is enough—don't attempt new matter, except in a continued use of the script.

Of the reading lessons already suggested, broadly or definitely, many have been memory gems and songs in regular use. These have been memorized, and in the process of memorizing them, the mind has "picked up" many of the word forms. Print several of these on the board over night.

By the time for opening school the next morning, the early pupils will have helped one another to a knowledge of what those lines say. Let your reading lesson come first that morning. Encourage the most backward of those who have the clue to read each the entire story he selects. Then turn to the chart upon which you have printed all of these memorized selections and turn the leaves. One will be recognized after another and the "funny writing" will be relished as a great novelty.

When "banking hour" arrives, ask who can suggest words that the whole class would be likely to recognize in print. Words from the rhymes will be recalled. Try a good many and accept those universally current.

The second day print several short columns of words partially known at first trial and let the slow pupils two at a time, play Hunting Match, each having a pointer and trying to find before his competitor the words called out by another pupil. Let the class decide who beats. For other games see "Mechanics of Reading" in the PRIMARY SCHOOL JOURNAL for February and March, 1893. Thirty-three such exercises are given, developing the value and interest of the Word Bank, as it has been found impossible to develop them in the space accorded to this series of articles. The competitive game above suggested (which many teachers have found very enlivening and interesting to the children) may be called Picking up Pennies, or any other name that may suit the thought of the day better than Hunting Match.

Two or three days after the first introduction of print to the children, a part or all of their regular reading may be printed instead of written. Two or three days of practice with sentences on the blackboard, given by themselves and printed by the teacher (don't let the children print) and they may turn to books.

There should be at least a dozen copies of each standard primer and first reader at hand and enough of Seaside and Wayside, or some such little treasure for the entire class.

The first day or two, the book itself, its parts and uses, its beauty as illustrated, its interest as an object of manufacture, may furnish subject matter for much study, the results of which may be written or printed on the blackboard for the usual reading lesson. For this purpose, give out all the primers.

Although the pictures and stories are not all alike, they all have covers, leaves, pages, pictures, and reading matter. The children may be allowed a great deal of freedom, during the first lesson, in comparing the pictorial contents of their books; and, for two or three days, the question, "What have you found in your book that you did not notice at first?" may open the continued discussion.

After the book has exhausted its first usefulness as an object of study in itself, let us say that the work on a certain day is upon the duck, a stuffed specimen being examined by the class. The teacher wonders if anything interesting about the duck could be found in any of the primers, and gives the signal for a search.

The children who have Swinton's Primer find page 23. Those

who have Stickney's find page 19, etc. Each tells about his find. The teacher, who has Cyr's First Reader on her desk, open at page 45, tells that she has no picture with her duck story, but the story is funny enough to do without a picture. She tells it (the story of the duck hatched out by a hen.)

The primers should remain in the children's desks, with permission to open them between tasks. Each should be covered and labeled with the temporary owner's name. They should be appealed to from day to day as above, for bits of collateral reading on the subject of the day's study.

As soon as a child furnishes evidence that he has familiarized himself with the contents of one primer it should be exchanged for another. (As the books change owners, other name slips may be pasted over the old ones, or the covers may be renewed.)

In some schools, children read all primers before taking first reader, and first half of all first readers before taking second half. As in this course, the primer and reader do not furnish the staple reading, they may be loaned the child for independent reading, in the absence of anything sufficiently simple and more closely connected with the regular studies.

The teacher should watch for children who do not take to this independent reading, and devise means of interesting them.

1. Send one each day from the room or into a corner to find the prettiest story in his primer so that he can tell the class about it and let them guess and find the picture.
2. Give the rest of the class some busy work and group these children about you for a journey through the primer. Let them talk freely about the pictures and tell what they have discovered in the print and show their mates "where it says so."
3. At a second class of this sort, settle upon some lesson that you think they can read and question about the picture in such a way as to elicit the printed sentences, which are read as answers.
4. Allow the entire class five minutes occasionally to "whisper" (delightful privilege) about their primers, while you post some book, prepare some work or do some individual teaching. The brighter will infect the duller pupils with some of their own interest during these recesses.
5. Permit a child, once in a while, to take home his book and show his mama something in which you have excited his interest.

Subjects for daily study should now be selected with more or less reference to accessible reading. A practical series of subjects, with much suggestion for treating them is given in "Seaside and Wayside." The reading in this series of books is good literature, as distinguished from the sets of jerky sentences furnished in primers and the early part of first readers.

"Nature Stories for Young Readers" and Miss Speer's "Leaves and Flowers" offer companion courses. These three books are earnestly recommended as supporting the Science side of Early teaching. If there is anything equally good for this grade on the literature side, it has not yet come under my notice.

WORD STUDY may be continued in the demolition and rebuilding of words, as pursued in former exercises. The Second, Third, Fourth, and Fifth Steps in Phonetics offer material for continuous practice throughout first year.

Step VI. introduces oral spelling. Things are better defined in the mind after their names are known. The names of all letters performing more than one office, and of all that share with others in representing the same sound, have already been taught. The consonants *m*, *l*, and others having but one sound, remain to be named. The sixth step consists in naming all the letters in new and dictated words and in recording all those needed to complete the alphabet. (It is obviously not necessary to recite the alphabet, but if the teacher thinks the order of its letters should be learned before pupils leave her class, they may be set to a tune and sung.) The same two steps must be taken in oral as in written spelling: (a) the letters are named from the seen word; (b) the word is held before the memory and its letters named.

NOTE.—The six steps in phonetics given in this series are taken from the author's pamphlet on "Phonetic Instruction."

THE LIBERAL SIDE.

The first of January brings with it good resolutions and plans

for the new year. Some story of old Janus will be in order. The series running in THE INSTITUTE called "Lessons on the Months" is full of interesting suggestion. Whatever the season brings uppermost in the children's thought, whatever the day's lessons contain of subject matter, should be made to yield the reading lessons.

Phonic Methods in Reading.

I. PURPOSES.

1. To have the pupil see at once that some words look and sound like some other words.
2. To have known word-forms help the child to determine for himself new unknown word-forms.
3. To present to the child the analogies of sign and sound in the words of his own vocabulary.
4. And so to make him as quickly as possible self-determinative in getting new word-forms.
5. To hasten results in reading, to better the quality of reading, and to give the child a chance to learn to love reading.

II. OBJECTIONS CONSIDERED.

"English is an unphonetic language, too full of irregularities and anomalies to permit of phonetic methods in teaching reading to children."

Answer: Suppose we grant this to be true of the 220,000 words making up "English at rest." But our working material in school-rooms is "English in motion," the child's "English in motion," some six thousand words at the most in his entire school experiences (in Monroe's Chart Primer 304 words, and Appleton's First Reader, it is 537 words; in Barnes's entire series, or the first five books, it is 6,002 words.)

2. But the analogies are not sufficiently extended to teach a child to determine his own words after all.

Answer:

Of course only an answer can come from an inductive study of the facts.

1. In Monroe's Chart Primer there are 68 a words and syllables; 56 of these are short a's, 6 are long a's, and 6 Italian a's.
2. In Barnes's 1st Five Readers there are 2,572 a syllables. When the a is unaccompanied by other vowels it is short a in 72 per cent. of the syllables; and in 57 per cent. of all the instances it is short, whether accompanied by other vowels or not.
3. In short, a is regularly short a.
4. Ay occurs 44 times; in 43 of the instances ay is long a; once only is it anything else (in says).
5. Again, ai occurs 134 times. In 125 instances it is long a, in 8 instances it is short e, in one it is i (aisle).
6. In 2,572 instances, there are only 13 "a" words that might give trouble, because the analogies are limited:

Ay, is short e,	1
Au, " long e,	1
Au, " long o,	2
Au, " short a	1
A, " silent,	5
A, " short e,	3
Total,	13.

These, of course, must be taught as sight words are taught in other methods. What is true of the ay syllables is likewise proportionately true of the other words and syllables.

For instance, there are 4,610 e syllables in Barnes's 1st Five Readers; in 1,850 instances e is short; silent (final) 1,633. Long e occurs only 411 times.

Only 51 e words might give trouble owing to the limited analogies.

ey is long a,	7
eu " long u,	5
ea " Italian a,	6
eau " long u,	1
eau " long o,	1
eye " long i,	1
ee " short i,	2
eu " long o,	1
eu " long a,	1 (fleur-de-lis)
ea " short o,	2
ee " long a,	2
ey " long a,	3
ey " long i,	1
ei " long i,	2
e " long a,	8
e " short i,	8
Total	51

III. PROPOSITIONS.

1. The work is to be busy work as a drill to the eye in form analogies.

2. It is also to be class drills in sound likenesses for the ear.
 3. It is to be done apart from the reading lesson periods.
 4. It is to be in accord with the facts—that is, the analogies are to occur in order of their importance, which is determined by the extent of the analogies as they occur in the child's vocabulary.
 5. The diacritical marks are not to be used, because they are not needed. Later they will be treated, say, in the 4th grade when the use of the dictionary is begun.
 6. The children are to learn some of the sounds of the letters—to teach the fact, mainly, that they do have sound values. This work to begin about the 6th week of the first year and gradually to become the work of propositions Nos. 1 and 2 and 9.
 7. They are not to attempt to learn or to give the sounds of the mutes.
 8. In the world buildings and drills the mutes at first are to occur as final not initial letters.
 9. There is to be no phonetic spelling. But there is to be a sounding at sight of the words in line; and later, a reproduction of them in form from memory.
- Objections:
- "But this leads to show halting, inexpressive reading."
- Not necessarily. Cognition of words is one stage of teaching, whatever the method of teaching. The ready recognition of words depends upon drill and devices; which may be in play in this method, as they are in any other method.

IV. A MOTIVE.

A sufficient motive for breaking away from the word and sentence methods, very shortly after the start (almost entirely after the first five months) lies in the fact that in our schools when we did not use these phonic methods, our primary classes read only one first reader per year, and that with difficulty. They now easily read four first readers.

But here is a statement taken from the report of the U. S. Committee of Education, 1890:

"Total number of all pupils in all schools, in all the states, for the year ending June 30, 1890, was 14,512,000. Of these 96½ per cent. receive elementary instruction only. When we consider that four years is the average time occupied in learning in the elementary schools, we see how small is the average amount of the instruction received in schools by the people of the country. It barely suffices for learning how to read, write, and use numbers in the simplest processes."

Evidently that man is a public benefactor who quickly puts a child in the way of determining his own words in his reading. Such men are Ward, of Brooklyn and Moses, of Raleigh.

—E. C. Branson.

Silent Reading.

Finding that one of my classes moved their lips during silent reading I interrupted them with:

"Close your books, children, and watch me read this page."

Having read the page silently I asked:

"Did my lips move?"

"No, ma'am."

"Did anything move?"

"No, ma'am; yes, ma'am, your eyes."

"What did I read with, then?"

"You read with your eyes."

"Could you do that? Try and see."

I made no remark during the reading, but found occasion to say at its close:

"One little boy forgot. If you cannot keep your lips still, put your fingers on them, so."

—A. A. P.

An Exercise in Phonetics.

Object: To have children recognize the sound *ā* and its symbols.

a. Children have been taught, among many others, the following words in their reading lessons: Cat, mat, man, can, fan, fat, hat, cap. Have them placed before the class now and reviewed.

b. Teacher then tells class that she will say them this time, while each one listens until he can tell which sound he hears best. Teacher then sounds each word several times, emphasizing *ā* until children can tell what it is. She now writes *ā* on the board.

c. Children clasp hands. Teacher sounds following words, and as soon as children hear *ā* they raise hands, but keep them clasped at all other sounds.

fish	man	not	catch	top
cat	now	bat	patch	tap

Naming of the Days.

By MARGARET J. CODD.

THOR.

"Force rules the world still,
Has ruled it, shall rule it;
Meekness is weakness,
Strength is triumphant,
Over the whole earth
Still is it Thor's-day!"

In the northern land Thor was the great god next after Odin. We can easily remember his name because Thursday or Thor's-day was named for him.

Thor's beard was red and over his head he wore a crown of stars. He rode in a chariot drawn by two goats and from their hoofs and teeth flashed sparks of fire, and the red clouds in the sky reflected his fiery eyes. About his waist he wore the belt of strength and in his hand he swung a heavy hammer.

Thor was the god of thunder. He reigned in *Tarudvang*, the dark storm cloud of the sky; his mansion, *Bilskirner*, was bright with the flashing lightning, and Thor was feared by gods and men.

In those days there was a great giant named *Hrungner*. He lived among the dark ones in *Jotunheim*.

Hrungner was a *rock giant*. He had a heart of hard stone, sharp and three cornered; his head was of stone and also his shield which was thick and strong; his weapon was a huge flint stone which he swung over his shoulders so it was no easy matter to fight him. He was so strong that all about him feared him.

Hrungner was rushing along furiously to try his horse's speed with Odin's horse, *Sleipner*, when he came one day to the very gates of *Asgard*. He entered and the *asas* invited him to refresh himself. *Hrungner* as usual began his boasting; he even threatened to demolish *Asgard* and to kill the gods who lived there.

Then Thor was called and came and swung his mighty hammer. *Hrungner* looked at him with angry eye and said, "O *Asa*-Thor, little honor will it be to kill me, unarmed as I am, but come, if you dare, to the bounds of my kingdom—there I will meet you with weapon and shield." Then Thor agreed to go and fight him.

So *Hrungner* stood like a mountain of rock, waiting for Thor. The servant, *Thjalfe* (*Thyalf*), ran to tell *Hrungner* that Thor was coming and soon with flashes of lightning and crashes of rolling thunder Thor came rushing on.

Thor swung his heavy hammer and threw it against *Hrungner*. The giant lifted his heavy flint stone and threw it against the hammer, "*Mjolner* (*Myolner*), the mighty."

The two weapons met in mid air and *Hrungner's* stone broke into two pieces; one fell to the ground, the other glancing off struck Thor in the forehead.

But the hammer, *Mjolner*, hit the giant with such force that it crushed his skull and he fell across Thor dead from the mighty blow. So Thor was again victorious.

What does this Mean?

There is a singular moral weakness to be found among those who have never had sight. "Sam, don't tear that book." "I ain't tearing it, Miss B., I haven't touched it; I wouldn't tear a book." "I saw you do it, Sam." Sam says nothing, but a "caught" smile lurking about his mouth shows that he is realizing that he had not considered that mysterious and inconvenient (for him) power that "seein' people" have of knowing a thing without touching it.

The latest instance of this is in Annie, a girl of seventeen years, who has had no training, her sole occupations being eating, rocking, and picking at her fingers. She is unsteady on her feet, very much bent, and a dwarf in every respect. Her finger ends are deformed, and her nails also, from the many "run-rounds" she has had. She has been here three months, and we are constantly watching her, and reminding her of the consequences of her habit. Her invariable reply is: "Oh, no, I'm not picking at my fingers, I never do." She also thinks that unless we touch her we can't know what she is doing. The mental process in such cases cannot be called weak. They reason correctly from the powers they possess. But the utter disregard of truth is something to think on, for it is not rare.

In teaching crystals use:

Crystals of	Snow,	Ice,
	Salt,	Sugar,
	Sulphur,	Alum,
	Lead,	Quartz.

Reproduction Stories.

One day Lucy Snow was stung by a bee. Her mother put ammonia on the sting, and soon it was quite well.

Two little boys went out to pick strawberries. One ate all he picked and the other carried his home to his sick sister.

"Tick-tock," says the clock, "don't forget to wind me up." So mama never forgets, but winds the clock every night at bedtime.

One of the brass wheels in a big clock once said, "I am tired, and I will not work any more to-day." Then all the other wheels had to stop, too, though they were willing to work.

Jimmy is a little boy. Prince is a big dog. They live in the country and play together out in the fields. When the sun is too hot they lie down under a big tree and take a nap.

There was a little pig that wanted to go to market with his big brother, but his big brother would not take him. He was a good little pig, so he stayed quietly at home and did not cry.

When Tommy was a baby his big sister used to rock him in the cradle and sing him to sleep. Now he rocks his baby sister in her cradle and sings her to sleep. He sings very softly.

My name is Betty. When I was four years old I went to a party. A little girl fell out of her chair, and all the children laughed but me. I didn't laugh because I was the girl that fell.

Good luck! an umbrella!
It may rain, he said,
And under a mushroom,
The toad hid his head.

—Babyland.

Joseph was sitting in a car; a lady came in and stood right in front of him. As soon as he saw that she had no seat he gave her his. Then the lady said he was a little gentleman, and so he was.

Johnny had a pop-gun. He tried to shoot a bird in a tree but just as he was going to shoot the bird flew away. Johnny was glad, for he says it would have been cruel to shoot the poor little bird.

Lily's mama said she would take her to the beach. Lily went to get her pail and shovel, so that she could play in the sand. They were easy to find because she always kept them in the right place.

Charlie's teacher said he must always bring a handkerchief to school. One day he forgot. He thought of his empty pocket all that day. The next morning he remembered to ask his mama for a handkerchief.

Mamie caught a little yellow chicken. She took it into the house to show it to her mama. Her mama said she ought not to frighten the poor little chicken by catching it. So Mamie let it go, and said she would not catch it again.

George found a five-cent piece. Just then he saw a little girl crying. He asked her what was the matter. She said, "I have lost two cents." George changed the five-cent piece and gave the little girl two cents and spent the other three cents for candy.

Mr. Crow is a very black bird. He eats the farmer's corn. The farmer hangs an old coat on a pole out in the cornfield. Mr. Crow thinks it is a man, and is afraid to come near. And so the corn is saved for you and me, while poor Mr. Crow goes hungry.

Harry's papa went to Boston for a week, and there was no one to bring coal up from the cellar for mama. Harry was too small to carry a whole pailful, so he asked his mama for an old tin pan and brought her coal so many times in that that the bucket was always full.

Elsie was always wishing to be rich. While she was looking out of the window she saw a fine carriage pass with a little lame girl. Her mother asked her whether she would rather be lame and rich like the little girl in the carriage. Elsie never wished to be any one but herself after that.

Katie and Susie had been angry for some weeks. One day Katie was skating on the ice when it broke, and she fell into the water. Susie was passing by, and hearing the screams rescued Katie from her unwilling bath. That ended the quarrel, and they are now firmer friends than ever.

The Language of Number.

By ANNA B. BADLAM.

During the first three months at school the child has been busy in recognizing, at sight, illustrations of the groups, *one to ten*, from the ball-frame, "Aids to Number," or the domino groups from the blackboard or manilla-paper chart; this has been for the purpose of furnishing a foundation for true mental pictures in the future. As a partial result of this training he has learned to recognize the value of groups, and has become accustomed to the expressions "more" and "less" in his daily work. He has had exercise in separating groups into two smaller groups, and has taken the first steps in the simple addition and subtraction of groups.

At this stage he should be able to recognize the *group-pictures* readily at sight from ball-frame, board, etc., and should be able to use his imagination as a means of oral expression in the language of number, viz.: Child, pointing to group, "This is the group 9.—There were 9 apples in the fruit basket." or, "This is the group 5.—I have 5 fingers on my right hand. I have 5 fingers on my left hand," or, "This is the group 3—I saw 3 cherries in a cluster;" or, "This is the group 6.—The cube has six faces," or, "This is the group 10. A dime is 10 cents," or, "This is the group 2. I can buy a stamp for 2 cents," or, "This is the group 8. I have just 8 fingers on both hands, if I do not count my thumbs," or, "I have found the group 7. There are seven days in the week," or, "I am pointing at the group 9. My brother is 9 years old."

Dealing with the groups,

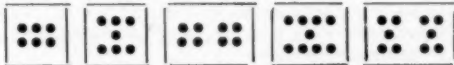


we should call for such oral expressions as, "I had 1 cent, my sister had 2 cents. She had more money than I. I had less money than she." (In each case the child indicates with the pointer the groups to which he refers.)

"There were two men on my side of the street; there were 3 men on the other. There were less men on my side of the street than on the other; there were more men on the other side of the street than on my side. Two is less than three; three is more than two."

"I am 5 years old, my little sister is 4 years old. I am older than my sister. My sister is younger than I am," etc.

Dealing with the groups,



similar work may be done; and, in addition we may look for such expressions, as, "A pair of 3's make 6," "A pair of 4's make 8," "A pair of 5's make 10,"—or, comparing these groups with groups 1 to 5, we may look for such expressions, as, "The group 3 is only one-half as large as the group 6," "The group 4 is only one-half as large as the group 8;" or, "The group 5 is only one-half as large as the group 10."

Various *dictation* exercises should go hand in hand with these lessons, as, "Find a group of two 2's." "Find a group of two 3's." "Find a group of two 5's." "Find a group of two 4's." "Find a group just half as large as 4." "Find a group just half as large as 8. Find a group that is one-half as large as 10." "Find a group that has three groups of 3's." "I see a group that makes me think of the fingers on my hand." "I see a group that makes me think of two pairs of shoes." "I see a group that makes me think of three clusters of cherries with 3 in each cluster." "I see a group that makes me think of the days in the week." "I'm thinking of a group that tells me how many fingers I have." "I see a group that reminds me how many parts a cloverleaf has," etc.

While there should be varied exercises to fix the group pictures, there must necessarily follow a definite line of development work, either from the ball-frame, or from noiseless material furnished each child. It is scarcely possible to estimate the rapidity with which classes can work during these development lessons; some classes are naturally slower to awaken to the consciousness of numerical relations than others; but, during the first three months, the average child should have secured the following facts from the development lessons, and should be able to apply these facts in connection with the problems suggested by the group arrangements and the *language of number* expressions given by the teacher, and, later, by individual children.

Material facts developed and applied in the first three months:

- | | |
|-------|---|
| Two | <ul style="list-style-type: none"> One and one are two. Two is twice as much as one. One is only half of two. One from two will leave one. One-half of two is one. Two from two leaves nothing. |
| Three | <ul style="list-style-type: none"> Two and one are three. Three is more than two. Two is less than three. One and two are three. |

- | | |
|------|---|
| Four | <ul style="list-style-type: none"> One from three will leave two. Two from three will leave one. Three from three will leave nothing. Three and one are four. Four is twice as large as two. Two is only half as large as four. Two and two are four. |
| Five | <ul style="list-style-type: none"> One from four will leave three. One-half of four is two. Two from four will leave two. Three from four will leave one. Four from four will leave nothing. Four and one are five. Five is more than four. Four is less than five. One and four are five. Three and two are five. Two and three are five. One from five leaves four. Four from five leaves one. Two from five will leave three. Three from five will leave two. Five from five leaves nothing. |

In connection with these facts various forms of practical questions should become familiar to the child.

Type forms:

1. *Union of quantities*, as, Two marbles and two marbles are?
2. *The conception of "more than;"* as, Willie has 3 cents, his brother has 2 more than Willie.
3. *The conception of "older than;"* as, Henry is four years old, his brother is one year older.
4. *The conception of "twice as many,"* as, Tom had 2 cents, and Elsie had twice as many cents.
5. *The conception of "how much more than;"* as, A slate cost 5 cents, a pencil cost 1 cent, how much more did the slate cost than? etc.
6. *The conception of simple subtraction*, as, Take 2 cents from 3 cents.
7. *The conception of what was left?* as, Three apples were in the dish, James took one, how many were left?
8. *The conception of "one-half as many,"* as, Willie had 4 cents, John had half as many.
9. *The conception of "younger than,"* as, Sam is 4 years old, his sister is 2 years younger.
10. *The conception of "less than,"* as, Henry had 5 cents, but Tom had 2 cents less than Henry.
11. *The conception of "how much less than,"* as, Sam had 4 cents, Kate had 2 cents, how much less had she than Sam?
12. *The conception of two equal rows, (etc.)* as, There were two rows of trees, with three trees in each row. There were two clusters of cherries, with three cherries in each row.

N. B.—In each instance, at this early stage of the work, have the facts involved in the practical questions expressed by the child with the balls upon the ball-frame.

In connection with the practical questions upon the facts of the number groups one, two, three, four, five, the development lessons upon the groups above five, should progress steadily and as rapidly as is consistent with the ability of the class, taking as the standard that of the average child.

The number work should be of a two-fold nature; daily review and practical application of the facts obtained through the earlier development lessons, and regular development lessons of advance work for the acquisition of new facts about the groups six, seven, etc.

From Addition to Subtraction.

The first subtracting of long numbers as 3,498,257 should be 1,737,134

solved thus (beginning at units' place): $4 + ? = 7$ (3 is the required difference.) $3 + ? = 5$, etc. Teachers naturally fall into this change of question with children for whom the idea of subtraction proves too great an abstraction. If Johnny can't answer "5 from 8 leaves how many," the teacher asks him, "5 and how many make 8?"

Many teachers never teach subtraction. Coming to the sixth place in an example like the above they question thus: " $7 + ? = 4$ " The child laughs and replies "7 is more than 4." "I wonder if there is any way by which we could turn our 4 into 14, speculates the teacher." Receiving no suggestion, she makes one. "Suppose I take one from this three and put it beside the four, so. What have we now?" The children readily adopt the fourteen and say "7 and 7 are 14," supplying the figure for the remainder. They as readily see that the 3 has become 2, and proceed $1 + 1$ are 2, completing the solution.

Some teachers stop here and let their children go on using this

process. Others see the necessity of the subtraction formula, and lead to it in this way:

Indicating the unit figures in the subtrahend and remainder, they ask: "If these two numbers make the one above, I can take either from 7 and have—?" "The other left," reply the children, who have learned this objectively. "4 from 7 then leaves—?" "3." "And 3 from 7 leaves—?" "4."

After going through the example in this way, the remainder may be erased and reproduced, using the language of subtraction. Then the example may be proved, bringing in addition again, and reproducing the minuend as a lowest line.

This may now be treated as an answer in addition. The two upper lines may be erased, and the teacher may ask how to reproduce the subtrahend (though she will not as yet call it the subtrahend). Some bright child will be able to set the ball rolling, and the class will restore the missing addend, saying, "Three and four are seven; two and three are five, etc."

After considerable experimentation with these numbers, developing the fact that, given two, the third is at command, the class may be run once more through the regular subtraction formula with the original example, as a review. It is only a matter of language, and language that they have used in their objective work.

On another occasion they may be asked which way of taking it they like best, and be allowed to choose. In a few days they may all be drawn into the habitual use of the subtraction formula.

A Lesson in Quarts and Gallons.

1. Slates in left arm! Pencils in right hand behind you! When you know the answer hold your pencil on your head. One quart of buttermilk costs one cent, what does a gallon cost?

(A pause for thinking during which right hands take position on heads.) Write! Pencils down! Slates on heads—horizontally! How many quarts in a gallon, class?

In your example how much did one quart cost? How much did 4 quarts cost?

If one quart cost one cent how much will one gallon cost?

Those who wrote four cents hold slates up high. Those who wrote anything else put your slates down. Minnie's figure is too small. I cannot see it from where I stand.

2. Ready for the next question! Minnie is the only slow one. Buttermilk is still one cent a quart. How much must I pay for two gallons? (Pause.)

Write! Pencils down! Slates up! How many quarts in a gallon?

How many quarts in two gallons?

How much is our buttermilk a quart?

How many quarts did we buy?

How much did they cost?

If buttermilk is one cent a quart what must we pay for two gallons?

Those who are wrong put down slates.

Those who are right show me your answer.

3. Ready! All were quick this time.

At one cent a quart what must we pay for three gallons of buttermilk?

(Repetition of former proceedings.)

4. Buttermilk has gone up. It is two cents a quart. How much must I pay for a gallon? (Pause.)

Write! Pencils! Slates up! How many quarts in a gallon? Yes, and here are four bowls to hold them. (Drawing.)

How much did we pay for each quart? Yes, two cents for this one, two for this, two for this, and two for this. (Writing a 2 under each bowl.)



What do the four quarts make?

What do we pay for one gallon of buttermilk?

How many have the right answer on their slates?

5. At two cents a quart what will one gallon of vinegar cost?

6. At five cents a quart what will one gallon of vinegar cost?

"Before the pupil studies the 'table' let him be furnished with a gill, pint, quart, half-gallon, and gallon measure, and a bushel of sand or a bucket of water, and then put to filling these different measures, first filling the pint cup by using the gill measure, emptying the pint into the quart measure until that is full, and so on. After the gallon measure is filled it may be measured by each of the other measures, and thus following out philosophy in knowing one thing and comparing others with it, definite knowledge is obtained.

The pupils literally do the table. There is no question as to the superiority of this method over the memorizing one."—Supt. Greenwood's Principles of Education Practically Applied.

(A supply of sand is a cheap and valuable "Teachers' Aid" outside of the geography class.)

A Study of Twelve.

By A. G. BALCOM.

A study of the facts in number from 10 to 20, constitutes the necessary part of our second year *number work*. To illustrate the steps taken, and the facts to be taught in taking up a new number, we will suppose the class are ready to take up 12.

The teacher has distributed a number of objects, usually splints or sticks, to each member of the class. The class select 12 from these and place them so they may be handled easily upon the desk.

The teacher then places upon the board work that will bring out the following facts about 12:

(a) To find equal numbers that make the number—*multiplication*. (b) To find equal numbers in the number—*division*. (c) To find the unequal numbers in the number—*addition*. (d) The reverse of this—*subtraction*. (e) To find equal parts of a number—*partition*.

The following are the questions:

(a) $12 \times ? = 12$ (b) $12 \div 2 = ?$ (c) $7 + ? = 12$
 $6 \times ? = 12$ $12 \div 3 = ?$ $8 + ? = 12$
 $4 \times ? \times 12$ $12 \div 4 = ?$ $9 + ? = 12$
 $10 + ? = 12$
 $11 + ? = 12$

(d) $12 - 10 = ?$ (e) $\frac{1}{2}$ of 12 = ?
 $12 - 7 = ?$ $\frac{1}{3}$ of 12 = ?
 $12 - 8 = ?$ $\frac{1}{4}$ of 12 = ?
 $12 - 9 = ?$ $\frac{1}{5}$ of 12 = ?
 $12 - 11 = ?$

To make the seat work thoughtful and systematic, the teacher has the pupils measure 12 by all known numbers. They do this work in connection with use of objects, entirely unassisted. This will appear upon their slates:

$1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 = 12$
 $2 + 2 + 2 + 2 + 2 = 12$
 $3 + 3 + 3 + 3 = 12$
 $4 + 4 + 4 = 12$
 $5 + 5 + 2 = 12$
 $6 + 6 = 12$
 $7 + 5 = 12$
 $8 + 4 = 12$
 $9 + 3 = 12$
 $10 + 2 = 12$
 $11 + 1 = 12$

This work is a preparation for the study of the *facts*. Pupils who have been trained to do this work like it and learn to take up new numbers very readily.

After a certain time has been allotted for the work, the slates are collected, and the following tests are made as oral work:—

1. How many two-cent stamps can you buy with 12 cents, Johnnie?

2. If oranges are 3 cents, what will 4 cost, Mary?

3. If you have 10 cents, and your mother gives you two more, how many lead pencils can you buy, George?

4. You have nine marbles, you lose 2 and your brother gives you enough to make 12, how many does he give you, James?

5. Your mother buys a pint of milk every morning except Sunday for two weeks, how many quarts does she buy, Nellie?

6. From this window to this, it is 4 yards, how many feet, Susan?

7. I have a dime, and May gives me enough pennies to make 12 cents, how many pennies does she give me, Henry?

8. There are four little girls playing with 8 dolls, each doll will cost $\frac{1}{4}$ cents, how much are they worth, Fannie?

9. Your sister has 10 cents, she spends $\frac{1}{5}$ of it, how much more will she have to have to buy 12 slate pencils at 1 cent each, David?

10. Mr. Brown gives James 2 cents for cleaning off the sidewalk, which is $\frac{1}{4}$ of his money, how much has he, Jennie?

11. You have 12 cents, you spend $\frac{1}{3}$ of it at one time, $\frac{1}{4}$ of it at another, how much have you left, Charles?

12. In a class of 12 boys, 3 of them are 10 years of age, what part of the whole class are 10 years old, Etta?

If a pupil hesitates in answering any of these, he is immediately brought into relation with objects. A failure is an unheard-of thing, for the pupils learn that they must find out everything for themselves. Thus, they become self-reliant.

The teacher on correcting the slates, makes a note of the pupils weak and strong points, and arranges her work accordingly the next day.

EMERGENCY AIDS.—A sheet of court plaster, a roll of worn-out handkerchiefs, and a pair of scissors are very convenient for the cut fingers and bruised heads that are unexpectedly presented to the teacher for attention. Keep on hand a little package of coarse brown paper. It is useful in reducing *bumps* and *swellings* when there have been accidents in the schoolyard. A wad of brown paper chewed vigorously, like gum, will almost always check bleeding at the nose. A roll of cotton wool is useful when children are troubled with earache.

"Four Lessons in Six."

By E. E. K.

(The children have used the terms plus and minus in studying numbers up to five. They now begin six.)

I. First boy; how many blocks have you? "Six."

Class, see what numbers you can make with your six. Second boy, what have you made? "Three and three."

All the boys that have made three and three stand. Three plus three equals how many, Charley? "Three plus three equals six."

Conrad, a story. "I had three cents and I found three. Then I had six, because $3 + 3 = 6$."

Philip, here is the chalk. (Philip writes $3 + 3 = 6$ on the blackboard.)

Julius, what shall I write? " $3 + 3 = 6$." (Teacher writes it in large, well formed characters.)

The rest of the " $3 + 3$ " boys may sit and make something else.

Third boy, what have you made? "Four and two."

All the boys that have made four and two stand. Four plus two equals what, Sidney? " $4 + 2 = 6$."

Arthur, a story. "A man had four horses and he bought two. Then he had six, because $4 + 2 = 6$."

James, write it.

George, what shall I write?

The rest of the " $4 + 2$ " boys sit down and make something else.

Fourth boy, what have you made? "Two and three and one."

All the "two and three and one" boys, stand. Clarence, a story.

"A boy had two marbles, he bought three more and he found one. Then he had six, because two plus three plus one equals six."

Fred, you and I will both write together and see which of us can make it look the best. ($2 + 3 + 1 = 6$.)

(Same program until additions in six are exhausted.)

Put your blocks at the back of your desk. Slates 1, 2, 3—what are they made of? "Paper." (A bit of make believe.) Then I shall not hear them—4.

(Children copy from blackboard.)

II. To-day I shall begin on the other side of the class. First boy, how many blocks have you? "Six."

All the boys that have six blocks raise hands. Second boy, what have I written? " $4 + 2$."

Class, put your blocks like that. Third boy, call them something good to eat and tell me a story about them. "Johnny had 4 peanuts and his brother gave him 2. Then he had 6, because $4 + 2 = 6$."

Fourth boy, what have I written? " $2 + 2 + 2$."

Class, put your blocks that way. Tommy, how many twos in six? That is a hard one to tell a story about. Who can do it?

Harry. "A man had six horses in a beer wagon. Two were in front and two were in the middle and two were in back. That makes six, because two plus two plus two equals six."

Were the horses in the wagon, Harry? "In front of the wagon."

Fifth boy, what have I written? " $1 + 5$."

Class, put your blocks that way. (Same program until additions in six are exhausted. Class copy and complete table.)

III. This morning I shall give the boys in the middle row a chance to help me. First boy, how many blocks have you? "Six." (Teacher writes 6.)

If I write this (the minus sign) what will you do, second boy? "Take away."

Class, take away so many (4). Hide them in your desks.

Third boy, how many have you on your desk? "Two."

Fourth boy, what does this say? "Six minus four equals two."

Fritz, a story. "I had six bananas, I ate four, then I had two because six minus four equals two."

Put your four back again. How many have you? What am I writing? (6) What does this mean? (—) Take away so many (3). How many have you left? What does this all say? ($6 - 3 = 3$.) Story, etc., etc., etc.

IV. We will let our blocks alone to-day if we can. When I find a boy who cannot think without his blocks, I will let him use them, and Freddie, you are a good counter, you may stand here and keep account of all the boys who answer without looking at their blocks. First row rise?

How many twos in six?

Three plus three?

Five and what make six?

Six minus one?

How many ones in six?

One and how many more make six?

Four plus two?

Six minus four? etc., etc., etc.

New occasions teach new duties; time makes ancient good uncouth. They must upward still and onward, who would keep abreast of Truth.

How to Use this Number.

1. Run over its pages lightly at first for points that are of immediate avail. Plan the work in which you intend to apply these points and record your plan. A good way of recording them is given on page 563 of the December JOURNAL.

2. Read the editorials and the pedagogical, for progress in educational theory. Finish the article on "The German Method in Primary Number" and read the practical part of this same discussion on page 559 (December), under the title "The Grube Method." Study this attentively, whether it is "in your grade" or not.

3. Read thoughtfully the other articles not already examined, applying the principles they involve (or evolve) to your own work. Are you doing the best that lies in your power under present circumstances? Can you *change* any of the circumstances to which you have submitted as controlling forces—or *manage* them? Are the writers of these articles standing on solid ground? This or that one, you think, is mistaken. How and why? This or that method is very different from your own. Is it better? Can you adopt it? Would it be well to urge it upon a neighboring teacher whom it might help?

4. Think out the relations that different articles bear to one another. Are the two articles on first-year reading related? Is there any connection between the article on "The Combined Method of Teaching Reading" and that on "The Bones"? How does "Elementary Geography" relate itself to the first article on reading? How do the other little suggestions for science lessons and the story pictures? THE LILLIPUTIAN? The Supplementary Exercises? Is there any article in the practical part of this or any past issue that does not bear some relation to this series on "The Combined Method" in first Reading?

5. Read the correspondence to find out what the difficulties or opinions of other teachers are; the Editorial Notes, to inform yourself as to school progress in general; and the Book Notices to see what is coming out in fresh covers for the assistance of teachers. These "back pages" of THE JOURNAL will remind you of many a point upon which you may have become rusty.

6. Having selected the leading features of school-room work that you think you can profitably incorporate with yours, consider what will come first, what material it will be necessary to prepare, etc. Then proceed with your preparations for thus enlivening your teaching.

Elementary Geography.

By SARAH E. SCALES.

(These lessons presuppose a knowledge of position, direction (right and left), and the points of the compass. These were ably given by some contributor in THE SCHOOL JOURNAL, October 7, 1893, to which the reader is referred.)

THE SUN.

(a) *Day and Night*.—Where is the east in this room? Face the east. Point to it. Walk toward it.

What can you see on the east side of the room? All children who sit near the east, stand.

How many have east windows at home? What can you see coming in at these east windows in the morning? Does it come in at any of our windows? Do you see it all day there?

Where do you find the sun at noon? Where at home or at school does the sunlight come in during the afternoon? Where do you see it last at evening?



Then we say the sun rises where? Sets?

What do you call the time when we see the sun? The time when it is out of our sight?

What do we call these times then? (Day and night.)

If you go out after the sun has set, what do we depend upon for light? If the clouds cover these what makes the night? (Dark.) If we wish to see well then what do we have to do? (Artificial light.)

Suppose we get all the lights we can will they make up for the sunlight?

In those lands where the sun shines very little time in the year what should you expect to find?

(b) *Shape and Color*.—Have any of you noticed the sun as it rises or sets? What shape did you find it? (Round.) Draw me a picture of it on the board.

Did you ever see anything of the same shape? What did you

call it then? (Circles.) Is the sun always this shape?

When does it seem larger, when it is low down or high up?

What color do you find it? When is it golden yellow? When red?

What colored crayon shall I give you to draw me a picture of the sun? (If children observe the sun at a height let them have a piece of smoked glass to protect the eyes.)

What do you seem to see shooting out all round the sun? Yes, rays or beams of light and heat. Then what does the sun give us?

(c) *Heat*.—Stand in the rays of the sun. Put your hand on the window sill where the sun has been shining. How does it feel? On a very hot day put some water in a dish in the sun. If you leave it there for some hours what will become of it?

After a rainstorm what becomes of the pools of water which were standing on the sidewalk?

What do we do sometimes to the curtains or blinds when the sun shines into the room? When the sun shines strong and bright in summer if we take a walk what do we have to do? What happens to men or animals sometimes when they work on a sunny day in midsummer? We say then what of the sun? (If the teacher will take a lens or magnifying glass, and let the rays be brought to a focus over paper it will burn it, and children will get an idea of heat from the sun.)

When do we have more sunlight, in summer or winter? Which season, then, should you think would be warmest? Then when do we have the more heat?

(d) *Use*.—Think of any use that the sun is to us. If there were no sun what should we do? What would all plants and animals do? What effect on these has the sun?

Tell me all you have learned about the sun.

THE MOON.



(a) *Shape*.—After the sun goes down at night what do we sometimes see in the sky? What does it look like? Is it the same shape as the sun? (Sometimes.)

When it is round and full what can you see on it? (A face.) Well, it may look like that to some. Sometimes little children call it a man in the moon, and away across the sea in Germany, they say it is an old man who would gather wood on Sunday, so they placed him there.

Other little boys and girls are told the story of Jack and Jill. The Chinese and Indians both have a story. (See Hiawatha's childhood for the last.)

What else have you noticed about the moon's shape? Yes, it sometimes looks like a crescent. On the next moon we will notice the way it appears to us. At first it looks like what? (A silver thread of light.)

Which way do the horns of the crescent point during the first quarter?

The last? Have you memorized the pretty poem, "Seven Times One"?

(b) *Light*.—Is the moonlight warm like the sun? Is it as bright? It has no light of its own, only the light of the sun which it throws back to us.

Is the moonlight of any use?

In those countries of which we spoke, where the sun shines only a little while, what help would the moonlight give? Do you ever see the moon by day? Do you think it is shining all the time? Why do you not see it then? What effect upon the night besides giving light does the moon have?

Draw me a picture of the moon on your slates and board as you remember it.

Here is a pretty little stanza to learn about the moon.

"Oh, Lady Moon!
Your horns point toward the east;
Shine—Be increased.
Oh, Lady Moon;
Your horns point toward the west."
Wane—Be at rest."

THE STARS.

If some clear, cold night in winter we should look at the stars, what should we see about them? What shape do they seem to be? Draw me some stars. If you look at them steadily what do they seem to do?

Are there many or few? Do you know the seven stars in the north called the Dipper or Plow? Near by is the north star? Look and see if you can find it.

In olden times people thought that there was a picture of a Great Bear in the sky and a smaller one near. These stars are in this group.

If you look overhead some night in the early part of the year you will see what looks like a white river running through the sky. This is made up of millions of stars, both big and little, but so far off that it looks white like milk, and is called the Milky Way.

Look some night and tell me next day what you find out about the stars.

Draw me a picture of the stars as you remember them.

Teacher tell or read stories about the sun, moon, or stars.

Study of the Sphere.

Let the children:

1. Study the sphere with eye and hand and tell their observations: it will roll, it will not stand easily, it feels smooth, it feels round. It feels nicer than the cube. It has no corners, etc.
2. Look about for the spherical objects within range of vision, and state that they are like the sphere.
3. Think of spherical objects not present to the sight and tell about them.
4. Bring spherical objects from home and compare them with the sphere.
5. Mold the sphere.
6. Imprint the sphere in clay bed.
7. Mold spherical objects.

Faces of the Cube.

1. How many faces has a sphere? What kind of face has a sphere? Has a cube any faces?
2. Count them as you touch them. How many parts has the surface of the cube? Then how many faces has the cube? Are they like the face of the sphere? What kind of faces are they? Rub your finger over one and then tell. (Flat.) What other word sounds better than flat? (Plane—supplied by teacher.) Now tell me the kind of faces a cube has. Tell me all you can about a cube's faces. (A cube has six plane faces.)
3. You may lay your cubes down. Look around and see if you can find anything else with plane faces. (Pencil-box. Form-box. Chalk-box.)

Clay Modeling.

The course in form and drawing in use in the Brooklyn schools is a slight modification of the Prang system. The type forms are studied by handling, by analysis, by reproduction in clay, by drawing, and by recognition in the common objects that meet the pupil's gaze, look where he will. In the illustration given, the cube has been molded, it has been impressed in a tablet of moist clay, and it has been repeated in the die and the hat-pin. So with the other type solids. The cut shows exact pictures of the children's work during first term. The pear is exceptionally good. Real cherry stems were used in this case. Great pleasure was enjoyed in graduating the beads for the bracelet.

Clay ordered for use in schools is usually delivered in a condition about right for molding purposes. It should not be wet enough to stick to the hands, or dry enough to crumble while under manipulation. After use, the individual lumps should be pressed together, sprinkled, and kneaded like dough, until it is once more a homogeneous mass of about the right consistency. Then it should be rolled in a damp cloth, preferably flannel, and laid away in a stone jar. Monitors can be taught to work the clay thus without spattering or smearing themselves or the furniture, if the right method is adopted. Some teachers never

Free-Hand Writing.

(Report of lessons given at Primary school No. 16, New York City, Miss S. J. McCaffery, principal. Reprinted by request from THE JOURNAL of June 27, 1891.)

Forty little girls of the lowest grade were sitting, the right side turned to the desk, the head well up, the entire forearm resting flat on the desk top.

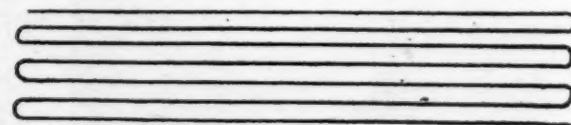
Let us talk about the new letter we have to-day, said the teacher. "One, two, three, stop; one," said the class, in concert, writing.

Write *vi*. "One, two, three, stop; one, two; one."



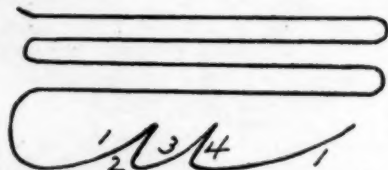
Write *vu*. "One, two, three, stop; one, two, three, four; one."

The teacher explained that with the older children we say *dot*, instead of *stop*, but the little ones understand *stop* better. Now we will take the movement-drill. "Slide, back; slide, back; slide, back; slide."

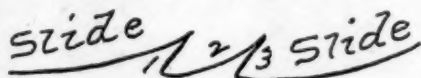


Good bold lines appeared on the papers. The children's arms moved freely, and their fingers fell into the correct position. In the fifth grade pens are used. The teacher said: Let your pens skate and then write *u*. Slide, back; slide, back; one, two, three, four."

The fourth grade were writing *u*'s with long slides. "Slide, one, two, three; slide."



The third grade wrote *u* a number of times, connecting the letters with a long slide and counting: "Slide, one, two, three; slide, one, two, three; slide, one, two, three; slide."

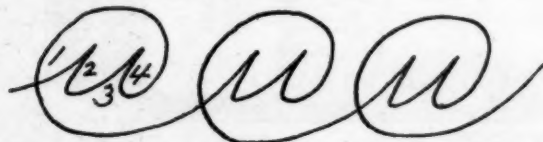


The second grade wrote *u* and *w* with curves. "One, two, three, four, curve, slide."

"One, two, three, four, five, six, curve, slide." The counting fell into a kind of rhythmic chant by no means unpleasant to the ear.



A first grade class took an exercise that gave quite a comprehensive view of the work. Take the first movement (class in concert), "slide, back; slide, back; slide."



Move on the flat of the arm making the elbow the center of the circle. Write *u*, counting. (Class) "Slide, one, two, three, slide."

Write three *u*'s, counting: "Slide, one, two, three; slide, one, two, three; slide, one, two, three; slide."

Write *u* three times with curves. "One, two, three, four, curve, slide; one, two, three, four, curve, slide; one, two, three, four, curve, slide."

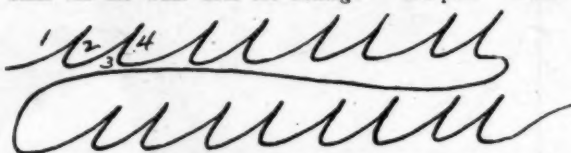
(When the first stroke of the letter is short it is counted *one* instead of *slide*.)

Write *u* four times, making it short; slide left and repeat. "One, two, three, four; one, two, three, four; one, two, three, four; one, two, three, four; slide; one, two, etc."

Write the word *summons*, counting: "Slide, one, two, three; slide, one, two, three; slide, one, two, three, four, five; slide, one, two, three, four, five; slide, one, two, three; slide, one, two, three; slide."

Write the word *gain* with curves. "Slide, one, two, three, four, slide, curve; slide, one, two, three, slide, curve; slide, one, two, slide, curve; slide, one, two, three, slide, curve; slide."

Class tell me what does the writing? "The pen." What



moves the pen? "The arm and wrist." What must we do with the fingers? "Let them droop." Then if we move our arms from the elbow how will the pen point? "Over the shoulder like a gun."



Elsie may come to the blackboard and make some rolling *o*'s.

The principal and class teachers who are using these exercises find that strict attention is secured: correct pen-holding, freedom, and rapidity of movement are acquired (without *talking* on the part of the teacher), and that the handwriting developed is individual and not merely imitative. Another point is that the training is especially beneficial to left-handed children, as the movements cannot be taken with the left hand, and in the concert-drill and counting the right hand easily comes into use.

Winter Botany.

Prepared by MRS. EDNA REED ORMSBY.

What has become of the summer leaves?

Are they of any use now, and if so, what?

(Protecting the little roots and making soil by decaying.)

Did all the leaves fall?

What trees shed their leaves entirely, and what trees hold them through the year, but what difference is there between them? (Evergreen leaves are green and alive through the winter. Oak leaves are dead and fall when the new leaves push them off in the spring.)

Get some twigs and see if the children can find where the leaves were fastened.

What else do you find on the twigs besides the dead leaves or scars where the dead leaves were?

When will the dead leaves now clinging to the branches fall, and what will make them do so?

What are buds? Let the children open them, first taking off the brown scales and then unfolding the green leaves within. Horsechestnut and hickory buds are excellent for this work, as they are large and show the parts well. Give name, *bud scales*, and lead children to observe how the tender little leaves are protected by them and by soft little hairs and by wax or gum. Draw or paint the twigs and note the arrangement of buds on twigs on different trees. Where is the largest and strongest bud usually found? Give name—*terminal bud*.

Where do the buds grow in relation to the leaves?

In the axils of the leaves, hence they are called *axillary buds*.*

Observe the difference in color between the upper and under sides of branches; between the north and south sides of the trees. Why this difference?

How could a person lost in the woods tell the points of the compass? Collect and study lichens. How many different kinds of trees can pupils recognize and name as well in winter as in summer? How do they recognize them?

By shape, color, and bark; noting differences between the angles at which different trees branch, also that all the branches and twigs of the same tree grow at the same angle. Draw picture showing how a tree would appear if some of its branches grew at the angle of the willow, while others had that of the oak, and still others that of the maple.

Let each tell what he considers the most beautiful tree, and

* Twigs of cherry and apple placed in water in the school-room will blossom and show both the leaf buds and the flower buds.

then find what different writers and poets have said of them. Let each draw the tree he most admires—without leaves—and see if other members of the class can name it. See if any one can find out what makes the little ridges or rings on the twigs. Notice how the color of the bark above the rings frequently differs from that below them.

Why is this?

The old leaves decay and make soil and the new soil helps to make new leaves in the spring, so the dead leaves live again in a continual resurrection.

Lessons based upon these suggestions will teach the children to love the trees and to observe them more carefully. In so doing they will find in them a source of constant enjoyment that will increase with each succeeding year, till they come to regard the trees as old and intimate friends. It is difficult to decide when the trees are most beautiful—whether in spring with tender green, in summer with abundant foliage and deep shadows, in autumn with abundant coloring, or when they display their delicate tracery of branches against the winter sky.

Study of Flowers.

The following subjects to be treated by Mr. William H. Gibson before an audience of New York children during the month of January, and illustrated by blackboard drawings and mechanical working charts invented by himself, are beautifully rich in suggestions.

FIRST LECTURE.

A flower, and the purpose of its various parts—The insect as the necessary life companion to the flower—Why the bumble-bee is necessary to the life of the red clover—No bumble-bees, no clover!

The streaks and spots of color in petals which tell the insect where to seek for the concealed sweets—How honey is protected from rain, dew, and sun, and the strange ways in which unwelcome insects are prevented from obtaining it.

The beautiful chrysanthemum, and how man has produced the hundreds of varieties from two or three wild species.

A double flower, what is it? The reason for its being so rare in nature.

The water-lily and peony—How the columbine's horns have been formed, and why the columbine and buttercups and larkspur and monkshood are close relatives.

The blossom as a contrivance to compel an insect to carry away its pollen to another flower—How the sage blossom uses the bumble-bee for its own purposes—The flower of the figwort, with a new greeting at its doorway from day to day. The red clover blossom and its secret.

SECOND LECTURE.

Curious and beautiful manners of flowers in their welcome to companion insects.

Singular stamens of the heath family of plants—Why the rhododendron, mountain laurel, cranberry, wintergreen, and Indian pipe are in the same family—A few of their welcomes to insects.

The laurel's impulsive greeting to moths.

The rhododendron's compliments to the hawk-moth.

A bell-shaped flower, and its surprise for the tiny bee which enters its doorway.

A queer stamen, and how it behaves—The roguish barberry blossom, and its strange greeting to the honey bee.

Another mischievous blossom with very singular manners—How the pink-cheeked, yellow-eyed desmodium bloom welcomes the insect to its nectar—A very much surprised bee.

Flowers which go to sleep at night, and others which are wide awake in the darkness and go to bed at daylight—The fragrant white catchfly, and why it opens three times at night and hides in the daytime.

A peculiar shaped flower which invites its insect friends only to imprison them—How they are set free with a precious message to another flower of the same kind.

THIRD LECTURE.

The yucca flower and the wise little moth which takes care of it—No moth, no seeds.

How to gather wild spring violets in October—Curious secret flowers which few of us ever see—Flowers under ground and under water—Flowers which have no use for insects, and which welcome only the wind—"What use is corn-silk anyhow, except to smoke?"

The milkweed flower and its puzzling form—Its fondness for a bee's leg, and its very good reason for this whim.

The orchid—Strange flowers which are exactly shaped to the heads, tongues, feet, and bodies of various insects—The fringed orchid, with its curious compliments to the moth.

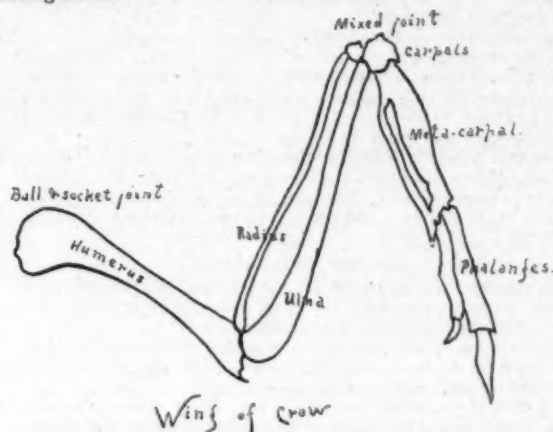
The arethusa and its parting salute to the bee.

The harebell's preparation for the insect—A bud with deep-laid plans and a beautiful welcome.

The Bones. II.

By FRANK O. PAYNE.

I. Wings.—Having eaten the flesh from the wing at dinner, save the bones. Boil them in a little strong soap-suds, to remove the grease. These may be glued or wired as in the preceding article.



If the teacher can not take time for such work in school, feet and wings may be fixed and mounted on Saturday for use in the museum, and being kept will serve for years in giving instruction on bones and joints.

II. Sheep's fore-leg.—Nothing affords more interest to the pupil than to procure and prepare skeletons and parts of skeletons.

Feet of sheep, pigs, and calves are obtained for the asking of any butcher, and the village and country boys can tell where to find the bodies of horses, goats, and other animals long since deceased. In an experience extending over many years, I have never found lack of material or lack of enthusiasm in pupils as a reason for neglecting this kind of study. It smacks of adventure. It is conducting into a field full of new facts and awakens interest in them.

Boil the leg until the flesh is very soft and cleans easily from the bones. Remove the flesh. If it has been boiled long enough, the bones may be cleaned by wiping off the flesh that adheres. Plenty of soap should be added to the water in which the bones are to be boiled. This will remove the fat and render the bones white. They should be bored and wired.

The teacher who tries this alone, or who requires the pupils to do so, will never regret the time so spent.



1. Immovable joint. 2. Hinge joint.

Our Story Pictures.

Japan is called "the Paradise of children." It is said that Japanese children seldom have to be scolded or punished, because they are nearly always obedient, polite, and good. They love their parents and friends very dearly. Of course such good children are very much loved in return.

There are a great many children's holidays in Japan. One is a girls' holiday called "the feast of the dolls." Another is a boys' holiday called "the feast of the flags." Of course, all the dolls are brought out on doll day and all the flags on flag day. Some Japanese dolls are hundreds of years old, having belonged to the great, great, great, great grandmothers of the little girls who own them now. This shows what good care Japanese children take of their toys.

Such careful children can be allowed many privileges that must be withheld from the careless. The Japanese cake-baker will sell a little Jap all that is necessary to make a cake and then let him or her make and bake it in his shop.

Our first picture shows the way in which these little brown Japanese girls take care of the babies. The second shows a Japanese boy on his way home from school. How do you like the way he wears his hair?

[More information about Japanese child life can be found in an article in THE TEACHERS INSTITUTE for January.]

We find the EDUCATIONAL FOUNDATIONS very helpful in our work at the training school.
Pittsfield, Mass. ARABELLA ROACH.

One Day's Program.

By ARTFUL JANE.

WORKING THEORY.—Unification.

GENERAL AIM.—To develop mind and body.

SPECIAL AIMS.—1. To intensify right motives; 2. To increase intelligence with regard to clocks. 3. To give practice in the subjects of the grade.

DAY'S SUBJECT.—The clock.

At nine the door was closed and the roll called. All present replied to their names with the greeting, "Good morning!" As the teacher closed the roll-book, she smiled kindly at her assembled pupils and said, "Good-morning, children." Then she turned to the blackboard and wrote "49 early children."

As it was a bright morning, the class sang cheerily, "Good Morning, Merry Sunshine!" This song finished, two or three children waiting outside, too late to bid their teacher good-morning, were admitted and marked late as they sheepishly took their seats. Then began

THE MORNING TALK.

The teacher read from John XV, 27: "And ye also shall bear witness, because ye have been with me from the beginning," and preached the following tiny sermon from it:

This is what Christ said to his disciples—that they had been with him from the beginning and so could tell the world about him when he was gone from the sight of men. If they had not been with him *from the beginning*, they could not have known him so well; they could not have loved him so well; they could not have learned all the beautiful lessons he taught them; they could not have told the world so much about him. Many, many people now-a-days, would give all they have on earth for one glimpse of Christ's face; and these men, these friends of his—just think of it!—were with him *from the beginning*. How happy it must have made them! But we, too, can be with Christ in a way. When we are good we are with Christ; when we do as he tells us to we are with him; when we are loving and kind we are with him; when we are brave and truthful we are with him. Let us try to be with him all the time, from the beginning of every hour and from the beginning of every day. Don't let us "wait a minute" to do something naughty, and then turn to go with Christ. You children have the great privilege of being with him from the beginning of your lives, as some grown people have had. You know about him *now*, and how to be good, as he would have you. Some people hear of him too late, for if we begin to be good when we are nearly grown up, we cannot learn to be *very* good. We must begin in time; and so it is very fortunate for you that you have good parents and school and Sunday school to teach you how to be with Christ *from the beginning*.

THE LESSON IN ETHICS.

There are a great many kinds of goodness—a great many ways of being good. You may tell me some of them.

(The children cited, in their childish ways, the virtues they had learned about.)

Yes, continued the teacher, we are with Christ when we are quiet in a sick room, helpful to our parents, kind to our playmates, thoughtful for the weak and the old, clean and tidy in our habits; but the kind of goodness we are going to study to-day hasn't been mentioned by any of you. Big folks call it punctuality. We will call it promptness, being early, always being on time with all that we have to do. The little girl that says, "Wait a minute," when mama wants her to do something right away is not with Christ when she says that. The little boy who waits for mama to call him half a dozen times before he gets up in the morning isn't with Christ *from the beginning* of the day. When we wake up in the morning, we ought to think, "Oh, dear me! how short the day is going to be!" and jump right up, so as to do all the good we can *from the beginning*. Some of you children could do good early in the morning by learning to wash and dress yourselves nicely, so that mama needn't have the trouble of doing it for you any more.

THE OBJECT LESSON.

Now, if we want to be prompt, to be always on time, what must we look at often? Some of you are looking at the clock. What must little children learn to do, before they can look after themselves in this matter of always being early? Yes, we must have clocks, and we must learn to tell time. How many clocks have we in this room?

"Three."

"Two: the big one on the wall and the little one on your desk. That one leaning against the blackboard isn't a real clock. It's only a clock face. It won't go."

Which of the two clocks would you like to have? "The little one, because it's pretty." "The big one because it goes without winding up."

But the wall clock would not go if the man forgot to attend to the electrical machine down cellar. Of what use is this clock face? "To move the hands around." "To learn to tell time." "You can set it any time you like."

I can set my clock or the wall clock any way I like. "They won't stay, unless they're run down. The clock face stays any way you put it."

Well, who wants to set it at the time he got up this morning? (Two or three succeeded and others read off the time thus indicated.)

Who wants to tell us at what time his family has dinner? (More were able to do this. Others followed, using the clock-face to show breakfast, supper, and lunch time, the time for opening and closing school, bed-time, Sunday-school time, etc. Each indication was read by some pupil and the brighter children made all necessary corrections.)

We will keep this up from day to day until you all know how to tell time, and then we need have no more late children, because you can watch the clock for yourselves. We are going to have recess at this time (setting to 10:30). Now you may tell me why you think more of the two real clocks than you do of this clock-face? "They're some use." "They tell the time."

But, sometimes this little clock of mine that you think so pretty is a naughty little clock. What do you suppose it does? "It goes fast." "It stops." "It goes slow." "It don't tell the time right." "It tells stories."

It *doesn't* (emphasized to correct the "don't" erroneously used by a pupil) always tell the truth. If I were to let it go on without correcting it every day, it would soon tell me it was three o'clock at four, and if I were to believe it instead of the wall clock you would get home late from school. Tell me, why are clocks like people? "They must tell right or they ain't any good." "They have hands." "They have a face." "That little one has feet."

Their hands, faces, and feet are not like ours, but clocks are *just* like us in one thing: *They must tell the truth*, or we can't believe them. How do clocks tell the time? "Their hands point to the numbers."

Sometimes I ask where a certain word is on the blackboard. One boy will point to the word. Another will say, "It's the third word in the second sentence." Which boy is like the clock? "The boy that points." And why is a clock like a deaf and dumb person? "Because it can't hear." "Because it can't talk—it has to point."

What makes the hands go? "The wheels, in back."

The wheels, behind the face; and this is what they look like. I borrowed these works from a watchmaker to show you. Some time to-day, I shall let you, a few at a time, look at them closely and see how one wheel moves another, and how the works move the hands. This is how it is wound up, and this is how it looks when the wheels are all in motion. Why may we call this the brains of the clock? "Because the works make the hands go."

Yes. If your brains didn't tell your feet where to take you and your hands what to do, you would be very quiet little boys and girls indeed. Well, Charley? "My uncle said he felt as though his works were all run down. What did he mean?" I am afraid your uncle had been using himself pretty badly. He thought of his stomach as one wheel, and his heart as another, and his lungs as two more, and his brain as another; and, because he had not fed his stomach as it ought to be fed, or filled his lungs with good, pure air, or given his brain enough sleep, the whole machinery was out of order. Don't let us abuse ourselves like that. It is time we took in some good long breaths of pure air. Open the windows wide, Harvey. (Class stood and had a breathing, chest tapping, and stretching exercise, after which the windows were closed and slates taken, and the children wrote their names and answers to the following questions, as the teacher gave them out:)

THE NUMBER LESSON.

How many numbers on the face of a clock?

How many hours from nine o'clock in the morning to nine o'clock at night?

How many hands have four clocks?

How many long hands have nine clocks?

How many short hands have seven clocks?

How many feet have three clocks like this one?

How many feet have a hundred clocks like the one on the wall? (None.)

How many hours is it from one to four?

If this little clock cost a dollar and a half, how much would two such clocks cost?

If the wall clock cost \$4.00, how many could I get like it for \$8.00?

A jeweler has eight clocks on a shelf. Five are wound up and the rest are not. How many are ticking?

How many are not ticking?

Slates were collected and the talk proceeded.

You think the little clock pretty. Tell me what there is pretty about it. "The gold and silver." "The cunning little feet."

But there is no gold or silver about it. The feet and ring are brass, an dwhat looks to you like silver is only a nickel plating. However, I think the brass and nickel as pretty as you do. Tell me what a clock and a little child must always have (taking duster from desk and polishing glass)? "A clean face."

PREPARATION FOR DRAWING.

Yes, indeed! clean faces are pretty. And I see other things about the clock that make it pretty,—prettier than we could make it. Suppose you were to try to draw it? "We could not make it so round."

No, I'm afraid you couldn't, for it's a perfect circle, but we'll try by-and-by. How about this clock-face? "It has a circle, too." Set in a piece of —? "Pasteboard." What is the shape of the card-board? "Square." Could you make such a square? "No, ma'am."

No, your square would not be quite so *true*, and so it would not be quite so pretty. Everything perfect in its way is beautiful, and so these squares and circles and neat, perfect numbers on the clock-face are beautiful. The prettiest thing about the clock to me is its neatness.

Now you may tell me about your mama's clock. Close your eyes and see just how it looks for a moment, before you begin to talk about it. (The teacher seemed to realize that she had done more than her share of the talking thus far, for she simply indicated the children who were to speak and expressed her interest in what they said by smiles and nods while she watched their language and took down some of their errors, such as, "It ain't," "It don't," "Ain't got no," "seen" for *saw*, etc. At 10:15, she closed the talk and wrote the following sentences on the black-board:)

THE LANGUAGE LESSON.

It *isn't* a new clock.
It *isn't* ten years old yet.
It *doesn't* go too fast.

Mary *doesn't* own a clock.
She *saw* my watch.
I *saw* her mother's clock.

Well, Geoffrey? "I don't know the fourth word in the second line." Who can help Geoffrey? (Words unknown to some pupils were known to others, and they prompted one another until all could read the sentences.)

Why have I underlined some words? "So we'll read them louder." "Because some boys made mistakes." (The sentences were read as italicized, by individuals and then, each several times, by the class in concert.)

Did that reading sound like talking? "No, ma'am." What shall I do? "Take away the lines." Then what will you do? "Read like talking." (The underscoring was removed, and the sentences read with natural emphasis and erased. The department bell for recess closed the exercise and emptied the classroom. The teacher examined the slates, making some notes as to the failures and successes of her little arithmeticians, and then wrote the words of the first, second, and last stanzas of the following song upon the blackboard, changing "guarded" in the last line, to careful, and finishing just as the class filed back to seats.)

THE READING LESSON.

Arthur (a dull boy) may tell me all the words he knows in these lines, and where to find them, and I'll put a tiny yellow

1. See the neat little clock, in the centre it stands, And points out the hour with its two pretty hands, The one shows the minute,
2. The pendulum swings inside a long case, And sends its two hands round its neat pretty face, Unless it should go too
other the hour, As often you've seen in the high church tower As often you've seen in the high church tower.
slow or too quick; It swings to and fro, with a tick, tick, tick, It swings to and fro, with a tick, tick, tick.
3. There's a nice little bell, which a hammer does knock, 5. But the wheels would not go, nor the pendulum swing.
And when we hear that we can tell what's o'clock; Nor the hammer clap, clap, nor the little bell ring,
We like nine and one, for then it is the rule, Nor the two heavy weights go up and down;
To ring the little bell for us to march into school. Unless there be motion there cannot be sound.
4. Hark, hark, how it strikes! there is one, two, three, four, 6. Go mst I, like the clock; my face happy and bright:
Five, six, seven, eight! will it strike any more? My hands, when they're moving, must always do right
Yes, yes, if you listen you'll hear, when it's done, My tongue should be guarded to say what is true
Nine, ten, eleven, twelve; the next will be one. Wherever I go and whatever I do.

cross beneath each. (Other pupils followed Arthur until all words known were thus marked.)

I'll sing you the song, pointing to the words, and when I have finished, you may show me what new words you have picked up. (Teacher sang all three stanzas, and pupils remembered and told several new words.)

What does the first line say? Florence may make it true. (Florence placed the clock in the center of the teacher's desk.)

I'll sing the song once more for you, and then you may try once to sing it through with me. (Teacher sang. Pupils pointed out new words "picked up" during the singing. Class made a good attempt to sing it through with teacher.)

Mary, read the third line of the first stanza. Laura, which hand shows the minute? Joe, which shows the hour? Franklin, is the second stanza about the little desk clock? How do you know? "Because the little clock has no pendulum."

THE CALISTHENICS.

Class, stand. Right about—face! (So as to look squarely at the wall clock.) Stretch out your right arm as far as you can and point to the pendulum. Move the whole arm back and forth with the pendulum and say what the clock says. (Each arm separately and then both together were given this exercise while the tongues kept time with the regular "Tick-tock.") Arms down! Left—face! (Bringing right side toward clock.) Swing your right arm from the shoulder like the pendulum, saying tick-tock. Swing it as though you had something heavy in your hand. Right about—face! (Bringing left side toward clock. Same with left arm.)

Front—face! Clasp hands at back of neck. Swing your right foot like a pendulum, saying tick-tock. Have a heavy weight tied to your foot. (Same with left foot.)

THE DRAWING LESSON.

We are going to draw the clock-face. We will draw it in air first. Reach out your right arm and place it for the upper straight line. Draw. (A strong horizontal sweep of the right arm resulted from former exercises of this kind.) Place for left vertical. Draw. Right vertical—draw. Lower horizontal—draw.

Now, we must make the circle inside the square. I am glad you made squares as large as your arms would reach to make them. Place at middle of left vertical. Swing up and around—once—twice—three times—four—five—six—seven—eight times—down! Seats! Draw the clock-face as large as your slates will allow. Willie, Nancy, Sue, Sam, Edgar, and Lemmy (children with cramped, stiff habits of execution) may draw on the board, so as to have plenty of room for big, big clocks.

What did I say was the prettiest thing to me about the clock? "Its neatness." Well, I hope I shall find your drawings pretty in the same way. (While the children drew and compared their drawings, whispering a little without rebuke, the teacher wrote between lines, in Spencerian script that was nearly perfect, the line from the third stanza of the song, "My hands when they're moving, must always do right," and distributed double-ruled books and lead pencils. She then examined the drawings and told the class to turn their slates over and draw the little clock or the wall clock, whichever they liked best. While they did this, she gathered about her, group by group, the pupils to examine the clock-works, conversing with them in low tones about the spring, the various wheels and their connections.)

THE PENMANSHIP LESSON.

A little more practice on the song, was followed by an exercise in writing in air, while standing. Resuming seats, the children practiced a series of movement exercises with meat skewers on waste paper and then wrote the copy the teacher had set upon the board twice in their books, receiving careful instruction as they wrote. This closed the morning program, which, while very little resembling the typical school morning, had embraced reading, writing, arithmetic, ethics, physical exercise, drawing, music, language training, and thought training. The teacher said she intended to emphasize word and number drills in the afternoon, with more of the versatile

employment that had filled the morning.

Your paper pleases me exceedingly, being so practical, and, at the same time, elaborate. OTTO M. SANKEY.

Supplementary.

What the Clock Says.

Here I stand both day and night,
To tell the hours with all my might;
So then example take by me,
And serve the right as I serve thee.

Birdies' Breakfast.

Two little birdies, one wintry day,
Began to wonder, and then to say,
"How about breakfast this wintry day?"

Two little maidens, that wintry day,
Into the garden, wended their way,
Where the snow lay deep that wintry day.

One with a broom, swept the snow away;
One scattered crumbs, then away to play;
And birdies had breakfast, that wintry day.

—Robert Ellice Mack.

A 6-9 Rhyme.

A queer little boy who had been to school,
And was up to all sorts of tricks,
Discovered that 9 when upside down,
Would pass for the figure 6.

So when asked his age by a good old dame,
The comical youngster said,
"I'm 9 when I stand on my feet like this,
But 6 when I stand on my head."

—Chatterbox.

[The pupil who recites this should stand on his head at the close, and, if possible, walk off on his hands.]

For First Year in School.

By W. NICHOLAS.

RAIN-DROPS.

Plump little baby clouds,
Dimpled and soft,
Rock in their air-cradles
Swinging aloft.

Great snowy mother clouds,
Broad bosoms white,
Watch o'er the baby clouds
Slumbering light.

Tired little baby clouds
Dreaming of fears,
Turn in their air-cradles
Dropping soft tears.

Great brooding mother clouds,
Watching o'er all,
Let their warm mother tears
Tenderly fall.

MINNIE AND WINNIE.

Minnie and Winnie
Slept in a shell.
"Sleep, little ladies,"
And they slept well.

Pink was the shell within,
Silver without.
Sound of the great sea
Wandered about.

Two bright stars
Peeped into the shell.
What are they dreaming of?
Who can tell?

Started a green linnet
Out of a croft,
"Wake, little ladies,
The sun is aloft."

MORNING COMPLIMENTS.

A light little zephyr came flitting,
Just breaking the morning repose.
The rose, made a bow to the lily,
The lily she bowed to the rose.

And then in a soft little whisper,
As faint as a perfume that blows,

"You are brighter than I," said the lily;
"You are fairer than I," said the rose.

What is Worth Doubling.

By KATE BUTLER.

One jolly, laughing boy,
But he is only one,
So he calls another jolly boy,
To join him in his fun,
Twice one are two—
Two laughing boys.

Two happy, nesting birds,
Singing in the spring;
Two other birdies hear them,
And they begin to sing.
Twice two are four—
Four singing birds.

Three little squirrel's gay,
Racing in a tree;
Three more come chasing after,
Frisking merrily.
Twice three are six—
Six squirrels gay.

Four twinkling stars so bright,
Blinking in the sky;
Four more come shyly peeping out,
To see what they can spy.
Twice four are eight—
Eight twinkling stars.

Five lovely roses sweet,
Opening in the dew;
Five other rosebuds, seeing them,
Unfold their pink leaves too.
Twice five are ten—
Ten roses sweet.

Double joy,
Laughing boy,
Double fun and singing,
Double brightness everywhere,
Double beauty springing;
Double all that's fair and good.

But never
Double
Trouble.

Problems.

QUESTIONS ASKED AT BREAKFAST TIME.

Why do milk and water spill?
Why do knives cut chickens up?
Why do good things make one ill?
Why do cracks come in my cup?

What's inside of lima beans?
Why do little boys have names?
Why ain't papas ever queens?
Why does fire come in flames?

Why do apples grow on trees?
What's the use of hired men?
Why don't table legs have knees?
Why don't six come after ten?

—Selected.

Contentment.

I'm glad I am a little girl,
And have the afternoons for play;
For if I were a busy bee,
I s'pose I'd have to work all day.

And if I were an owl, I'd be
Afraid to keep awake all night;
And if I were an elephant,
How could I learn to be polite?

And if I were a Jersey calf,
I might forget my name and age;
And if I were a little dog,
I couldn't read the Children's Page.

My sakes! When I begin to count,
It makes my head go all awlirl,
There are so many reasons why
I'm glad I am a little girl.

—Youth's Companion.

Twin Kittens.

By MALANA A. HARRIS.

I went to the wood-shed this morning,
And found cuddled up in a nest
Two wee, pretty, snowy white kittens
So cunningly taking their rest.
I lifted them out of their basket,
They gave such a weak little cry
The mama cat came in a hurry
To find out the wherefore and why.

I said to the mama cat kindly
That I would take care of her dears;
I think that she quite understood me,
She purred and moved both of her ears,
And then started off for a mouseie
While we started off for some milk
To give to the dear little kittens
Whose coats were like softest of silk.

The kittens would not eat their breakfast
For they did not know how to lap.
So I took them back to their basket
And told them to take a nice nap.
I'll give the name "Snowball" to this one,
And the other name "Cotton," I think.
Round one neck I'll tie a blue ribbon,
The other will look well in pink.

Before they are many days older
I know we'll have plenty of fun,
For they will be romping and playing
And after each other they'll run;
Their claws will be pulling our dresses
And after their tails they will chase.
They're sure to do all kinds of mischief,
And sure to get things out of place.

Speeches of the Trees.

By K. AIMÉE.

Oak.—I am the "Oak" tree—
For years I have stood;
And every one knows me,
As "King of the Wood."

Pine.—I am the "Pine"—
And as proud as can be
Of the needles fine
That grow on me.

Maple.—I am the "Maple,"
And from me
An article staple
Is given to thee. (*Holding up maple sugar.*)

Chorus.—We are happy as can be,
Because we know
That we give some joy to thee,
While we grow.
On "Arbor Day" the children dear,
Visit us and sing our praise;
Other seeds they plant right here
To take root in different ways.

Something for Children.

There's enough for you children to do in the house,
To keep you as busy as any old mouse.
There are errands to run,
Little tasks to be done
That will do much to lighten your mother's hard work.
So, children, don't shirk,
But do what you can;
You'll be glad when your grown
To a woman or man.

There's enough for you children to do all about;
If you try, you will very soon find some work out.
There are chickens to tend,
Little tasks without end
You will find you can do it if you just take a start.
So, children, be smart,
And do what you can;
You'll be glad when you're grown
To a woman or man.

There's enough for you children to do anywhere,
So hurry around and each do your full share.

And just see how bright
You will feel when at night
You can think you have done what is honest and fair.
So, children, take care
To do what you can;
You'll be glad when you're grown
To a woman or man.

And, children, whatever you do, do it well;
People always, in looking it over, can tell
If you hurry right through
Whatever you do,
Not caring at all if it's done ill or well;
So whatever you do,
Do the best that you can;
You'll be glad when your grown
To a woman or man. —*The Young Herald.*

An Intelligent School:

A WASHINGTON'S BIRTHDAY DIALOGUE FOR SMALL CHILDREN.

(Five children sit in a row with arms religiously folded. A little girl with a ruler in her hand plays teacher.)

Teacher (in a sharp, business like tone)—First boy, what day is this?

First Boy.—Birthington's wash-day.

Teacher (impatiently)—Oh, dear me, Johnny, you always get the cart before the horse. How many times must I tell you that this is Washington's birthday? Next boy, when was Washington born?

Second Boy.—On the 22d of Tuesday, 1899.

Teacher.—Why, how can you say that when 1899 isn't here yet? This is the year 1894. Washington was born in 1732 on the 22nd of February. I'm so glad my next scholar's a girl. She'll know something. Alice, who was Washington?

Alice (stands, twists about, pulls her apron, finger in mouth, head to one side)—He was one of our four fathers, but I don't know which one. And, teacher, seems to me four fathers weren't many for this whole country to have. I never could understand what people mean by "our four fathers." (*Sits.*)

Teacher.—Why, you dear child, they don't mean the number four! They don't spell it that way. They spell it *f o r e*, like the front feet of a horse. They mean our *before* fathers—the fathers we had before we had these fathers—our grandfathers and great grandfathers, and our great, great, great, great, great grandfathers.

Alice (jumping up)—O o-oh! Now I know what they mean when they say Washington was a great man. He was my great, great, great—how many, teacher?

Teacher.—No, child, you don't understand me yet. Washington wasn't anybody's great grandfather, for he never had any children. We call him a great man because he did a *great* many brave and *great* things; and we call him the father of his country because we all love him very much. Now who was Washington?

Alice (confidently)—He was a great man but not a great father; and he was the father of this country but not my father. (*Sits.*)

Teacher.—Very good indeed! I wish all my scholars were girls—they learn so quickly. Now, Lucy, what was George Washington's first name? (*Lucy stands, twists her clasped hands behind her and seems not to know. The three boys raise their hands and wave them violently.*) I don't think you know, Willie, for you're only a boy. (*The three boys shout in concert, George!*) Well, I see you do know that much history. I s'pose it's because it's a boy's name. Now see if you can tell me who Martha Washington was. (*Lucy sits down.*)

Boys (in concert)—Martha Washington.

Teacher.—Yes, of course! But what relation was she to George?

1st Boy.—His little girl.

2d Boy.—His mother.

3d Boy.—His teacher.

Teacher.—Johnny, I told you he had no children. She was his wife; and whenever you see a picture of Washington and a lady's picture made to go with it, that lady is Mrs. Martha Washington.

Lucy (rising)—Please, teacher, she must have been named after my Aunt Martha.

Teacher.—No, dear, she lived a long while ago, before your Aunt Martha was born. But I do like girls! They make such sensible remarks. Now, Johnny, you would never have thought of that, you know you wouldn't!

Johnny.—I haven't got any Aunt Martha.

Teacher.—Well, neither have I. But I guess we've had enough history for to-day. It's time for calisthenics. (*Any pretty calisthenic exercise may be used to close, or the children may simply march two or three times around the stage and then to their seats.*)

Editorial Notes.

An interesting course of three lectures for young children on "The Mysteries of the Flowers" is to be given by Mr. William H. Gibson at the Manhattan Athletic club theater, Madison avenue and Forty-fifth street, this city, on January 6, 10, and 13, at 3 P. M. The lectures are for the benefit of the New York Kindergarten association. They will be familiar talks, aided by colored illustrations and mechanical charts. The subjects are given on another page. They suggest a delightful course in flower life and might well be expanded by teachers of primary classes.

A great many useful hints for teaching will be found in our Correspondence columns. Our subscribers contribute special points from their successful work to these columns, or questions relating to the practical difficulties that attend their teaching. These questions are usually answered from the editorial desk, sometimes referred to specialists, and sometimes left open for further discussion. Teachers should not fail to look through these columns in every issue.

Artful Jane, in her article, "One Day's Program," affords a very suggestive study of that much-neglected principle dwelt upon by Dr. Rice in his book "The School System of the United States," the *principle of unification*. Teachers who want to know how this principle may be applied should read this article and the current series on The Combined Method of Teaching Reading. Many teachers remain skeptical toward the theory of unified teaching because they have not given it a fair trial, or listened to the evidence in its favor.

A brief and comprehensive review of the "Leading Events of 1893" will be found on another page of this paper.

Johns Hopkins university has enrolled among its students this year a rather remarkable woman in the person of Mrs. Arthur Davis. Before her marriage she graduated with high honors from Columbian university in Washington. She passed a perfect examination for the nautical almanac office, gaining 100 per cent., while her competitors, all men, and all college graduates, retired from the examination room early in the day, unable to solve the problems presented. She invented a Washington-Greenwich table which is now in observatory use. She will study for the degree of Doctor of Philosophy.

Several communications have been elicited by the article, "Hands off of our Public Schools." THE JOURNAL does not look at this matter from the standpoint of any religious sect. Fifty years ago the matter was vehemently debated; at that time the Protestants had a good deal of Protestant religious teaching done; to open the schools to all sects they divested the schools of that teaching; the broad ground was taken that it was not the business of the state to lay a tax to teach religion; that is the ground taken to-day—it is impregnable.

There are men who are obliged to pay a school tax, say of one hundred dollars. Shall the state divide that up among the sects, giving the Catholics \$10, the Presbyterians \$9, the Methodists \$8, the Baptists \$7, the Unitarians \$1, the Lutherans \$5, and so on, and finally the Mohammedans ten cents? The state would thus aid the propagation of each religion in proportion to its numbers; it would be a 10% partner with the Catholics, 9% with the Presbyterians, etc.; to a proportional extent with all the religious sects. But America has seen enough of the effects of states attempting to meddle with the religion of its people; it has cut loose for all time.

It is of no use, as one of our correspondents does, to argue that "the salvation of the soul is paramount." It is conceded. Let the parent take proper measures to secure the salvation of the soul of his child and not demand the state to do it. The state stands only partly in the place of the parent; it proposes to give the child the elements of a literary education, reading, writing, computation, etc.

There are serious difficulties that cannot be got rid of in attempting to divide the school tax *per capita*. Suppose nine-tenths of the tax is paid by Protestants, suppose half of the children are Catholics; will the Protestants willingly pay a tax for the purpose of having children taught Catholicism? This is not a question for the sects to wrangle over again; that was done fifty years ago. It is now more important than then that schools should be open for all sects, where the elements of a secular education can be imparted. There can be no breaking up of our public school system. The way for the Catholic is the way the Protestant has had to take, lay by any expectation of religious teaching in the public school and provide for it in other ways.

In the *Educational Review* for December a review of Dr. Rice's book on *The Public School System of the United States*, appears evidently from the pen of its editor, Dr. Nicholas Murray Butler, for it is signed N. M. B. Under cover of a book re-

view it is really an attack on Dr. Rice; though the book is only just off the press he judges it "has done more harm than good." His (Dr. Rice's) part in the effort to displace Mr. Marble (at Worcester) does not tend to make one lean to the belief that his judgment in the case of Worcester was an unbiased one." There was no foundation for this charge. Dr. Rice was voted for by some members of the Worcester board of education, but without his knowledge. Such a charge is highly damaging. The aim seems to be to belittle Dr. Rice in order to befriend superintendents whose schools were put in the lowest, the mechanical class by him—Baltimore, Buffalo, Cincinnati, New York, Worcester, Milwaukee, St. Louis, Chicago, Philadelphia, the Boston primary schools.

There are some bits of information that go beyond Dr. Rice's book. "The Philadelphia normal school is a hot-bed of inefficiency." The New York normal college "needs overhauling badly." Has Dr. Butler inspected these?

Undertaking the thankless task of showing the actual condition of the schools of this great country Dr. Rice should have had the cordial co-operation of a man like Dr. Butler, who, clearer than most college men, comprehends that in most cases improvement "is hopeless until a radical recognition both of men and methods is effected." Indeed, it has been supposed that Dr. Butler was an educational reformer on the same lines with Dr. Rice; it is this belief that has given him prominence, at all events.

Like David of old, Dr. Butler has spoken hastily; when he has time to reflect, especially under the influence of the "Happy New Year" time, it is not to be doubted but that he will apologize in the next number for the too severe words he has spoken.

As the Columbus exposition passes into history as the most wonderful achievement of the century every reader will desire a permanent record of its greatness and beauty. Our Columbian Album (See supplement pages) is now ready for delivery. It has been enlarged from 128 to 160 pages. The price of similar but inferior books at the stores is from \$3 to \$5. We sell no copies, but offer it as a premium for our subscribers on prompt renewals.

There are many teachers who will go South this winter and do not care about going all the way by water. It is pleasant to go by the *City of Augusta* with Captain Catherine or by the *Kansas City* with Captain Fisher. Both are good ships. If any one of the other ships of the Savannah line be taken the men would declare before they had reached Savannah that that particular ship was the one which should be taken in the future. The trip is only from forty-eight to fifty-five hours, and is one which gives just enough of the sea. Then, too, Savannah is one of the most interesting cities of the South. It has become a popular half-way point among winter tourists. Before you get ready to start, you would better write to Mr. W. E. Arnold, called the "Prince of Traveling Passenger Agents," pier 35, North river, New York, for detailed information, sailing schedules, etc. See his advertisement. He is a great friend to teachers. Note that.

A very remarkable man is Thomas May Pierce, who is principal of the Pierce Business college in Philadelphia. At every graduating occasion he assembles the notable people of the city to listen to an address by some notable man—this year ex-President Harrison. That Mr. Pierce can crowd his school with pupils in a city full of excellent free schools shows that he has a genius for teaching. He has a genius for selecting teachers as assistants, too. While passing about his rooms last year an assistant teacher remarked, "I learned to teach by reading THE SCHOOL JOURNAL; it has been worth everything to me."

Some teachers in free schools think there should be no pay schools; but this is a mistake. No pay school can succeed unless it is a good school; a free school may. There is not a town in America of 3,000 people and upwards where a really good man might not carry on a pay school. Mr. Pierce succeeds because every one of his teachers is an able teacher. If he had to take such teachers as some boards of education force on him, the funeral march would soon be played in his rooms. Here is a hint for public schools.

Occasionally a manuscript sent us is accompanied by a very humorous letter. The following is an exceptionally good specimen of last year's crop:

I beg your perusal of the accompanying sketch. My mind is stocked with a great many such gigantic efforts, and if this pleases you I should be glad to contribute to your magazine every month. Beware how you receive this, as I shall judge of your editorial merits by your opinion of my writings, and I should hate to add your name to an already long list of "people out of place." I enclose stamps for its return, provided there is anything left of it. Please do not allow the office boy to dance on it as I find such action does not improve its appearance and copying is hard work. If after perusing half of it you feel a strange languor overcoming you, you may know that it is a tribute to concentrated wit, the most dangerous phase of which will be an editorial nap. I advise French brandy before and after.

Yours conditionally,

P. S. W.

Out of twenty-three applicants for admission to the Agricultural college at Durham, N. H., six were girls.



Sarah L. Arnold.

Miss Arnold, the supervisor of the Minneapolis primary schools, is the daughter of a school teacher who was well known in Massachusetts as one of the leaders in establishing grammar schools in Plymouth county. She was born in North Abington, Mass. In the fifteen years since her graduation from the Bridgewater state normal school she has been a close student of education, and has successfully applied in her work what she has learned. Her experience covers all grades from first primary through the high school, and all conditions, from the little district school, whose windows looked on Plymouth harbor to the management of the most important branch of the school system of Minneapolis. She was two years principal of the training school of Saratoga Springs, N. Y. From there she was called to her present position six years ago.

For the last ten years Miss Arnold has taught in summer schools, east and west, notably at Glen Falls, N. Y., Martha's Vineyard, Virginia, and Iowa. She has frequently lectured in the West, and addressed many county and state associations.

At Minneapolis, Miss Arnold has the supervision and direction of the work of nearly 300 teachers. She visits the various schools and there holds meetings with the teachers. She often detains a class of children and gives an illustrative lesson, which afterwards serves as the test for the discussion of principles and methods. Besides these smaller gatherings Miss Arnold conducts monthly grade meetings. When all the primary teachers, numbering about 300, are together she presents the principles which should govern their work, illustrating them by reference to incidents observed on her visits to the school-rooms. There is also a general discussion of the work on the different subjects, followed by a comparison of experiences and results.

The Primary Round Table was organized a year ago under the leadership of Miss Arnold, for the study of the principles and methods of teaching. This society meets twice a month. Attendance at these meetings is voluntary. Nearly all the primary teachers are members, with many others. A systematic course of study is followed, and the educational topics discussed in the current periodicals are taken up for consideration.

Miss Arnold has done much to inspire the teachers, and aids and encourages them whenever she can. That the teachers appreciate her spirit is evident from the willingness and readiness with which they take up her suggestions, and work hand in hand with her. This co-operation brings harmony and unity into the work and keeps the schools in the line of progress. Dr. Rice, whose criticisms in the *Forum* of the schools of several cities created such a stir in educational circles, warmly commended the work in Minneapolis. He paid a high and just tribute to Miss Arnold when he wrote: "Being unhampered in her work, an earnest student of the science of education, and endowed with a progressive spirit, Miss Arnold has, during the four years of her service, succeeded in developing a system of primary schools that has few equals."

Tufts college sent out its first woman graduate last June. This year in the freshman class there are seventeen women, and the men have become so far reconciled that at the election of officers Miss Brown was made secretary.

Out of more than 10,000 babies checked and cared for at the crèche in the Children's Building during the fair season, only one was abandoned by his owners. It will be remembered that cynical people said the crèche would wind up at the close of business with enough material for starting a foundling asylum.

Louisiana

The State Teachers' association of Louisiana is a new organization. Its first annual meeting was held at New Iberia, December 26, 27, 28. It was a large gathering of teachers, together with the governor of the state, state superintendent, two ex-state superintendents, the president of the state normal, president of Tulane university, and a number of other distinguished citizens. The unexpectedly great success of the meeting promises well for the future of the educational work in the state. The people and the teachers are aroused, and the assuring words of the governor give hope that within the next two years may be expected such radical changes in the organic laws of Louisiana as will make her school system one of the best in the country. Prin. J. V. Calhoun, of the boys' high school, New Orleans, was elected president for the ensuing year.

Shorthand for January, in commenting on the uniformity and introduction of phonography into the supplementary course of the public schools of New York, remarks: "The first note of the season is a very cheering one; only Isaac Pitman's instruction books will be used by the New York board of education. The board has done wisely. It is the greatest step that has yet been taken on the road to uniformity, and without uniformity the value of shorthand is reduced to one-half. Imagine the clashing of at least fifty systems should correspondence in phonography be attempted by the American people! As well have fifty systems of ordinary caligraphy or typography! The text-book adopted by the board exclusively is Isaac Pitman's Complete Phonographic Instructor."

A large number of the readers of EDUCATIONAL FOUNDATIONS responded to the invitation to send in lists of those whom they believe to be *next to Christ*, the four greatest educators of the past twenty-five centuries. At the time of the closing of the contest, on December 31, 240 lists were received, making a total of 960 votes. Six other lists arrived after the specified date, and could not be considered. All those whose papers contain the four names credited with the greatest numbers of votes will, as has been promised, receive an educational work as a recognition of effort. The following shows the result of the contest:

Pestalozzi, 128.	F. Bacon, 37.	Ratich, 1.
Socrates, 127.	Rabelais, 36.	Ascham, 1.
Comenius, 92.	Basedow, 34.	Milton 1.
Froebel, 71.	Gerbert (Sylv. II.), 16	Th. Arnold, 5.
Mann, 71.	Luther, 15.	Herbert Spencer, 1.
Locke, 70.	St. Augustine, 14.	Jacotot, 1.
Plato, 69.	Col. Parker, 4.	Jefferson, 2.
Herbart, 56.	Diesterweg, 3.	Page, 4.
Rousseau, 55.	Sturm, 3.	Wickersham, 1.
Aristotle, 41.	Melanchthon, 1.	

Froebel and Mann having received an equal number of votes the publishers have consented to allow prizes to all having mentioned in their lists either of these names, together with the other three greatest. In accordance with this arrangement Quick's *Educational Reformers* has been sent to each of the following:

Supt. S. B. Laird, Dowagiac, Mich.; Prin. J. D. Sweeney, Tehama, Cal.; Prin. Alfred Livingston, Nashville, Tenn.; Miss M. B. Everett, Chelsea, Mass.; Miss Mary E. Shaw, Ft. Edward, N. Y.; Miss Fannie Iremonger, Brooklyn, N. Y.; Mr. M. B. Ohme, Willow, Fla.; Mr. W. H. Riechers, Crown Point, Ind.; Prin. P. A. McMeans, Palestine, Texas; Miss Myrtle McLaughlin, Clarion, Pa.; Prin. Geo. C. Hartline, Dengler's, Pa.; and Prin. H. W. Smith, Corydon, Ky. Co Prin. A. J. Harbaugh, Waynesboro, Pa., were sent besides Quick's work: Browning's "Educational Theories," Froebel's Autobiography, Rosmini's "Method," Radstock's "Habit," and the new student's edition of Page's "Theory and Practice." These books are intended as a beginning for a professional library for the Pedagogical club of Waynesboro, twenty of whose members cast their votes for the successful list. The names of these members are: A. J. Harbaugh, G. M. Spangler, Mary E. Bush, J. M. Mullan, Ida Negley, J. F. Dear-dorff, R. Lizzie Rhone, Mary F. Adams, Blanche Reeserman, Jessie Hassinger, Lallie J. Fisher, Sadie B. Mentzer, H. E. Neibert, Flo. M. Richardson, Ella M. Grove, Meta Walter, Anna Wallace, Mary H. Stover, Ada Hewitt, and Jno. W. Owen.

Leading Events of the Week.

A naval battle is said to be impending at Rio Janeiro, as Admiral Mello is awaiting an attack from the *Nichteroy*. The foreign powers have refused to recognize the insurgents as belligerents. Yellow fever has broken out in Rio. —Prendergast was found guilty of the murder of Mayor Harrison, of Chicago. —Gladstone celebrated his eighty-fourth birthday on December 29. —The Stars and Stripes were fired on by soldiers of San Domingo. The *Kearsage* has been sent to Haiti to investigate. —The Manchester ship canal was opened; that city is now a port of entry. —The California midwinter fair began at Golden Gate park. —President and Mrs. Cleveland held a reception at the White House on New Year's day. —The ways and means committee of the house have decided on a two per cent tax on incomes of \$4,000 and over. —Serious anti-tax riots occurred in Sicily.

Correspondence.

When Shall He Paint?

"The new subject or 'fad' of nature study has produced some interesting vagaries. We examined one such exhibit in which were displayed water-color renderings of the impressions made upon children by living things such as butterflies, beetles, crayfish, and the like. The work is painfully crude, and seems to indicate practically no progress in power of observation during the first four school years from which it was collected.

"It could scarcely be otherwise. Aside from the fact that, at the time when he begins the work, the child is deficient in the skill of observation and painting required for such work, it is demoralizing to direct the child's attention to the merest externals of life as they appear in the colored surface of the things of life. His chief and almost exclusive attention should be on the active utterances of life which point to inner soul-activity. Through the study and nurture of these the child should be led to respect and love life. Then will the tools of life in due time reveal to him their varied beauties and marvelous adaptations in form and color to the needs of life."—*The New Education*, September.

This, when one considers its source, is startling and grievous. More particularly the view the editor takes of color expression and its possibilities in the hands of young children.

"Painfully crude" seems unwarrantable from the pen of a teacher. An instructor in rhetoric might consider an infant's cooing "painfully crude" in the field of oral expression; but the student of the child will find it excellent address. It would be interesting to find anything in the way of observation and expression by the first grade child that is not crude to the last degree. Cut him off from those modes of expression in which he is crude and what is left? Curtail also his observation in those fields where it proves crude, and altogether you accomplish absolute inaction; death.

We read further that "at the time when he begins the work, the child is deficient in the skill of observation and painting required for such work." But painting, as a mode of expression, is far easier than that final refinement, oral and written language. When shall he begin his talk; when his skill in observation and technique warrants it? Bury his gray hairs first. By what procedure does he attain this power of observation which is finally to sanction expression in color?

If he learns to do by doing, the earlier he does the earlier he learns to do. If he works from the easy toward the difficult his earlier agents for self-giving must be the easier modes of expression. Among these is found painting. A description in color, even in the hands of the veriest novice, is a more simple matter than an equally adequate one in words.

We shall hardly demoralize the child if we give him a brush and a butterfly, and lead him to tell his vague scrap of truth regarding the creature before him. He has progressed toward the central truth as far as his dawning powers admit, and that is enough for the time. He has engaged in the reciprocal growth processes of observation and expression to the full of his ability. His growth can be effected by no other route than this. Shade of Froebel forbid that the result should be anything else than crude! Man's whole course does not finish him. What manner of finish shall be evinced in these first gropings from within outward?

If the child copied merely a lithographed color design, all would readily concur in the fact of his being demoralized. But with the bug or butterfly before him he is gazing into the deepest recesses of nature as far as his baby eyes may pierce. He paints the butterfly's wings. Does he not paint *function* with every dab? Could his soul activity be in any case more profound than when he is looking his keenest into these parables of a creator, and giving his freest of the store of truth transmuted into him?

It is inconceivable that four years of such expression—from the same children—should not exhibit results highly satisfactory. Accidental conditions must have intervened to destroy the progression. I have watched children pass through several years of this water color expression in nature study; and in the fourth year of such process they are, with hardly an exception, veritable artists, even from the standpoint of the academician. That excess in freedom of treatment in the first year, which falls under the criticism of the editor of *The New Education* modifies and refines itself in the succeeding years, but lives. And the child so grown stands in strong contrast to that other who has shriveled to the estate of imitator in every form of his expression. There is no stage of a baby's growth too early to surround him with a universal environment, both as to material for observation and modes of expression. Let him babble his unintelligible "Ah-goo." He will some day be a prime orator. Let him fling his puny arms. It was the beginning of Sampson. Let him cover the paper with a homely daub. It is a beautiful, an exquisite story of the butterfly, that came to him radiant with the message of eternal verity.

"Concentration"—aye, around the child the center. Concentrate the total upon him. What shred of creation is there that should not speak to him and receive its veriest answer?

WALTER J. KENYON.

Notation for First Year.

A few weeks ago while visiting in Greenfield, Pa., I found that Miss Callie Logan had spent nearly a year studying the problem of how to teach children to write numbers.

She at last discovered that the following written on B.B., gave her decided help and she calls it the key to the whole problem.

The child seems to get an idea of the steps of 10.

Units										
0	10	20	30	40	50	60	70	80	90	100
1	11	21	31	41	51	61	71	81	91	101
2	12	22	32	42	52	62	72	82	92	102
3	13	23	33	43	53	63	73	83	93	103
4	14	24	34	44	54	64	74	84	94	104
5	15	25	35	45	55	65	75	85	95	105
6	16	26	36	46	56	66	76	86	96	106
7	17	27	37	47	57	67	77	87	97	107
8	18	28	38	48	58	68	78	88	98	108
9	19	29	39	49	59	69	79	89	99	109

When children have learned to write the first column the teacher asks how many are 9 and 1 and then writes 10 in the next column, and so on in each case where 9 is the last figure. The number 101 is a puzzling step. To

overcome this difficulty the child is asked to write 100 and then taught that the naughts take the place of figures that mean something. The child is asked to rub out the naught on right hand and place in its stead the figure 1, then it looks thus: 101. He is taught to write 110 in about the same way.

By her systematic addition of 1 to 9 in all cases she leads pupils to write the next higher number very easily.

E. J. LEWIS.

I find so many aids and suggestions from primary teachers in your SCHOOL JOURNAL, that I will send one of mine.

SECOND YEAR WORD-STUDY.

Words are written upon the board, and the children asked to find as many words as they can in the word given. The word orange was written, and in a very short time nearly all in a class of twenty-two, had seven words which were told and written in short stories. At another time the word grandmother was written, which contains eleven letters, and I was pleased to find that twelve pupils had thirty words, neatly written and numbered. This is given at odd times and the children enjoy finding the words very much.

Sheephead Bay, L. I.

M. M. C.

Could you not make the reading lessons in THE LILLIPUTION a little easier? The words "thought," "captain," "chamber," "beautiful," "squirrel," etc., are too difficult for the average child in second year.

A. B. C.

If we should reduce the vocabulary of THE LILLIPUTION to the *rat, mat, fat, sat on a hat cat-egory*, we should spoil it for the majority of our readers. Children who learn to read by the spelling method will find it difficult, no doubt, but their case is hard all through. We fear it is beyond our help.

It has long been a dream of certain teachers that children may be taught to read in one year. There is a rumor afloat that this dream has been realized, or is about to be realized in Brooklyn. We have faith that it will be. Teachers who use the word-method of teaching reading know that *elephant* is as "easy" a word as *cat*, and that the lively and interesting little *squirrel* could not have a hard name. Teachers using the phonetic method have more than once succeeded in giving such a command of phonics during the first five months that reading was practically taught, for any word presented and marked could be pronounced.

Combining these two methods and taking a year for the work, Brooklyn has developed an easy and natural one year's course for the child through the first steps to actual independence in reading. Teachers whose second year pupils cannot read THE LILLIPUTION should look to their methods of teaching.

I should be glad to receive an explanation of the article concerning Helen Keller in SCHOOL JOURNAL, Oct. 7, No. 13.

I do not understand how it is, that she reads so that she can be heard, even though her voice is mechanical. I have always thought, that when human beings were dumb, they could no more speak than a horse. I am a subscriber, and always find THE JOURNAL so interesting that I do not like to lay aside one copy without a thorough understanding of everything in it.

Harrisburg, Owen Co., Ky.

A. B. S.

Dumbness may be a consequence of some defect in the organs of speech, in which case, if the physical defect is incurable, the person cannot be taught to talk. But it is often a direct consequence of deafness. The person never hearing words, never learns to produce them vocally. It has been found of late that vibrations of voice, even carrying ideas of articulation, can be conveyed to the sensorium of a deaf person in various ways. One is by laying the hand of the listener upon the chest of the speaker. If the lips are watched at the same time, lip reading is learned and the student becomes independent of the direct vibrations of voice, and can go out among hearing people and converse as others do. In the case of Helen Keller, blindness is added, so that the fingers have to do all the gathering in. The wonderful power of acquisition by limited means possessed by these unfortunates is due to the *intensity of the attention* they give to the informing sensation. Persons whose five (or more) senses are all active cannot so lose themselves in one.

Can children be taught to write numbers to 1,000 during the first year? If so, how is it to be done?

CARRIE JENNINGS.

Yes, they can be taught to write numbers to 1,000 during the first five months, and have been, often. But it is a soulless, mechanical aim the teacher gives herself and her pupils, if she does this work. The children *can* learn this, but they should learn something better.

We judge, however, that you are expected to teach notation to thousands and not to give your opinion about it, and that you want help. We desire to help teachers in all situations, and so we will answer your second question.

Use Miss Logan's table (given in adjoining column) as far as 100. Use it in as many different ways as your ingenuity can suggest. Dictate such series as 23, 53, 33, 93, 73, 43, etc., emphasizing the tens figure.

The easiest way to teach hundreds is to let the children go to the board, and write the numbers of their houses. A person's interest attaches here; the observant make use of their observations, and the unobservant are stimulated to look at and learn the numbers on their own doors. All are prone to tell in writing "where they live."

Some will have numbers extending to tens only, and some may

write thousands. Arrangement of units under units, etc., may be taught without saying a word about units, tens, or hundreds. Johnny doesn't know his number. Ascertain it from your roll-book, tell the class, and ask who will write it for him. Tell Johnny to look when he goes home and see if that is right, etc. A few exercises of this sort and your class will be able to write all numbers that can be expressed with less than four figures. Extend Miss Logan's table for review. Let the children *make* it, for busy work.

In general, when your children do not "take" to what you are required to teach them, you may rest assured that either it is not the right thing for them to learn at this particular time, or you are not pursuing the best method of teaching it. If you do not agree with your curriculum as to the timeliness of its matter, minimize the harm done your pupils by finding some interesting method. On the whole, it matters less *what* is taught the children, than *how* it is taught. Many a stupid course of study has been made alive by a live teacher.

Will you kindly answer the following questions through your valuable paper.

Would you recommend gymnastic exercises instead of play at recess during cold and stormy weather, and if so what system is considered the best? Where could I get a suitable instruction book? Whose music book is best for young pupils just beginning the study of vocal music?

A TEACHER.

On cold days, except in the bitterest weather, the children should have outdoor exercise. There should be a covered playground for use on rainy days. Where this is not available, the windows should be thrown open and gymnastics substituted for the active games. But relaxation from following directions and giving enforced attention is also needed. A few minutes devoted to whispering or to quiet class-room games should succeed the gymnastics before the school settles down to work again.

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New Books.

In the depiction of quiet love and devoted patience such as is seen in *Evangeline* Longfellow has rarely, if ever, been excelled. It is his painting of home scenes and their surroundings that makes him the best loved and probably the most read poet of America. *Evangeline* is especially liked on account of the pathos of the story, the beauty of the descriptions, and the music of its verse. It has just been issued as Nos. 125-126 of Maynard's English Classic Series. It contains a short biography of Longfellow, critical opinions of him by leading writers, the origin and history of the poem, a map of Nova Scotia and vicinity, and explanatory foot-notes. It is substantially bound in cloth. (Maynard, Merrill & Co., New York. Mailing price, 24 cents.)

We have just received two beautifully bound volumes containing the numbers of *St. Nicholas*, comprising Vol. XX, that have brought sunshine into thousands of homes not only in this but in other lands during the past year. This magazine has always aimed at the best, and among monthlies of its class it certainly leads both for the literary quality of its articles and the excellence of its artistic work. One is astonished at the large number of well known names among its contributors. In prose we note Col. Higginson, E. C. Stedman, William O. Stoddard, Rudyard Kipling, Mary Hallock Foote, Kate Douglass Wiggin, Kirk Munroe, Charles Frederick Holder, John Burroughs, and other well known writers; in poetry, Arlo Bates, Mary Mapes Dodge, Margaret J. Preston, Louise Chandler Moulton, Edith M. Thomas, Helen Gray Cone, Harriet Prescott Spofford, etc. There is an excellent series of illustrated articles on American cities, including New York, Boston, Philadelphia, Chicago, Washington, and Baltimore. The miscellaneous articles are too numerous for special mention, yet they are all good. The humorous department contains an abundance of scintillations from the author's pen and the artist's pencil. The volumes of *St. Nicholas* are those most sought after in any library. (The Century Company, New York.)

In a small 16mo. volume is published the first and second books of Eutropius, edited by Watson Caldecott, B. A., with maps, notes and vocabulary. Eutropius was a Roman historian who lived in the reigns of the emperors Constantine the Great, Julian, and Valens. His history embraced the period from the foundation of Rome to the reign of the latter emperor. In order that the pupil should get into the habit of continually consulting a grammar whilst he is construing the text, there are frequent references to the "Public Schools Latin Grammar." Mispronunciation has been guarded against by quantifying the words very fully. Other good features are the maps, containing all the names which occur in the book and a scheme for parsing. (Longmans, Green & Co., London and New York.)

The knowledge a pupil acquires by his individual efforts may be considered his own; this is eminently true so far as mathematical studies are concerned. The practical should precede the theoretical; hence the value of William George Spencer's *Inventional Geometry*, consisting of a series of problems intended to familiarize the pupil with geometrical conceptions and to exercise his inven-

tive faculty. The author is an experienced mathematical teacher and the book was prepared for the use of his own pupils. It introduces the beginner to geometry by putting him at work on problems which will not only thoroughly familiarize his mind with geometrical ideas, but will exercise, at the same time, his inventive and constructive faculties. The problems are skillfully graded and the pupil is expected to solve them by his own unaided efforts; for this reason no key accompanies the work. The book has been printed in form to accompany the Science Primers. (American Book Co., New York, Cincinnati, and Chicago. Flexible cloth, 35 cents.)

Supt. Edgar S. Ferguson, of Sand Beach, Mich., in a pamphlet of 68 pages entitled, *Opening Exercises for Public Schools*, has presented a variety of selections under such heads as "Idleness and Industry," "The Sabbath," "Truthfulness," etc., from the Bible and from various writers of America and Europe. Each program is designed to teach some cardinal point in morals in a way that will not only be unobjectionable to all religious sects, but also agreeable to the scholars. (Browne Brothers, printers, Sand Beach, Mich.)

An excellent idea is put into practical form in the *Child's Hand Book for Collecting Pictures and Stories of Animals*, prepared by a lover of children. The children are expected to get pictures from various sources and paste them in the blank pages in the book, making a collection from which they will gain much knowledge of natural history in an easy and pleasant way. Among the special objects of the book we may mention the following: (1) It will amuse the children by giving them pleasant occupation in the line of their natural propensity to make collections of things; (2) it will gratify and intensify their fondness for animals, leading to a careful observation of their color, form, size, habits, etc.; (3) it will give such a knowledge of the classification of animals, suited to their years, that they can make a collection of pictures and be able to put each one in its proper place; (4) it will supply and lead to an eager desire for such reading as shall forever settle the question of bad books. An appetite thus awakened will be satisfied only with wholesome food; the weak, harmful trash that lies in the way of every child will be rejected. The introduction price has been placed very low—seventy-five cents. (William Beverley Harison, 59 Fifth avenue, N. Y.)

To explain all the details of an intricate subject in a small book that one can put in his vest pocket is not a light task, yet John T. Brierly, A.C.A., has done it in *Book-keeping at a Glance*. His purpose has been to show the scholar who is about to choose a vocation how to deal with accounts himself or supervise those kept by others; the tradesman conducting a small business how to ascertain his status at any time; or the merchant how to avoid unnecessary strain upon mind and body, by keeping the record of his transactions properly. The matter is presented in so condensed and clear a shape that it will be particularly valuable for students, as well as a pocket companion for reference. It is so indexed that any subject needed can be turned to the instant the book is opened, and is bound in handsome and durable flexible leather covers. (Excelsior Publishing House, 29 and 31 Beekman street, N. Y.)

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It would be hard to find a more useful book for the teacher in the kindergarten or primary school than *In the Child's World*, a collection of morning talks and stories for kindergartens, primary schools, and homes, by Emilie Poulsson. The preparation of these talks and stories were first undertaken by the kindergartens of Boston and vicinity. The subject follow, somewhat, the course of the kindergarten year, but selection must be exercised, since there is often under one subject more than enough for two weeks' work with the children. The book is in no wise intended as a one-year program. Reading more or less closely connected with the subject has been suggested in the hope that the teacher will avail herself of the inspiration and refreshment which poet, philosopher, scientist, and story teller are ready to give. While most of the stories are intended for very young children, some of them have been expressly prepared for older children. There are stories of nature and child life, of history and mythology, all of which have been found necessary for the symmetrical development of the faculties. Numerous attractive illustrations have been furnished by L. J. Bridgman. (Milton Bradley Co., Springfield, Mass.)



A Practical Pencil Sharpener for the School Room.

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the old strip and paste a new one in its place. For lead pencils and wood-coated slate pencils the machine has a wire gauge to prevent cutting the pencil too much on one side; also the carriage has a larger hole than the one for stone pencils. The same machine should not be used for both stone and wood pencils.

THE SCHOOL JOURNAL is published weekly at \$2.50 a year.

To meet the wishes of a large majority of its subscribers it is sent regularly until definitely ordered to be discontinued, and all arrears are paid in full, but is always discontinued on expiration if desired. A monthly edition, *THE PRIMARY SCHOOL JOURNAL* for Primary Teachers is \$1.00 a year. *THE TEACHERS' INSTITUTE* is published monthly, for those who do not care for a weekly, at \$1.00 a year. *EDUCATIONAL FOUNDATIONS* is a monthly series of books on the Science and Art of Teaching, for those who are studying to be professional teachers, at \$1.00 a year. *OUR TIMES* is a carefully edited paper of Current Events, at 30 cents a year. Attractive club rates on application. Please send remittances by draft on N. Y., Postal or Express order, or registered letter to the publishers, E. L. KELLOGG & Co., Educational Building, 61 East 9th Street, New York.

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Leading Events of 1893.

United States.—During the year the attention of the country was turned to the condition of the finances and currency. The increased expenses of the government caused by the enlargement of the pension list and the decrease of the tariff revenue, caused the surplus in the treasury to disappear rapidly; at the same time large quantities of gold went to Europe and the gold reserve in the treasury steadily grew less. When President Cleveland took office the condition of matters was bad and the country seemed to be on the verge of a panic. In August he found it necessary to call an extra session of Congress for the repeal of the Sherman silver act, which was considered the main cause of the depletion of the gold reserve. After a debate of about three months, during which the senators from Nevada, Colorado, and other mining states resorted to every tactics imaginable to defeat the bill, and the president refused to accept any compromise, it was passed. Many business failures occurred during the summer; in the fall and early winter an improvement was noticeable.

The greatest event of the year was the World's fair at Chicago. It was attended by people from all over the world; among the distinguished people who came was the duke of Veragua, a lineal descendant of Columbus; the Princess Eulalie, of Spain, and others. Notable incidents were the bringing over of imitations of the Columbus caravels and the Viking ship. The most important gathering during the fair was the Parliament of Religions. The fair closed in gloom, on account of the murder of Mayor Carter Harrison, of Chicago. A grand naval review took place in New York harbor in April.

Early in January news came of the overturning of the Hawaiian monarchy and the establishment of a provisional government. President Harrison recommended annexation and Minister Stevens raised the American flag over the government buildings at Honolulu. The Cleveland administration reversed this action and on the strength of Commissioner Blount's report maintained that Queen Liliuokalani had been overthrown through the efforts of the U. S. minister. Latest reports show that the provisional government is still in power.

The supreme court declared the Chinese exclusion law constitutional; they have been given six months longer in which to register. On demand of Secretary Gresham, Peru apologized for wrecking a U. S. consulate, and Honduras for firing on a U. S. vessel. The court of arbitration at Paris decided the Bering sea case. England and the U. S. are to unite in the protection of the seals. The centennial of the national capital was celebrated. The Russian extradition treaty was adopted. Ships of the Inman line became American vessels. The national quarantine bill became a law. The Nicaragua canal company was reorganized and work will again proceed. Archbishop Satolli was appointed apostolic delegate to the U. S., by the Pope. Our representatives to leading European countries were raised to the rank of ambassadors. The Cherokee strip was opened and immediately occupied by settlers. Many Jewish immigrants arrived from Poland, and Waldenses from Italy. The year was marked by important additions to our navy, including the *New York*, *Columbia*, *Oregon*, *Olympia*, *Detroit*, *Indiana*, and *Marblehead*. Bills are now in Congress for the admission of Utah, Arizona, New Mexico, and Oklahoma as states. The Wilson bill, now under consideration, proposes a reduction of the tariff. The casualties of the year included the destructive tornadoes on the Atlantic and gulf coasts, the floods in the Mississippi river and its tributaries, and an unusually large number of railroad accidents.

Other American Countries.—Business in Canada, as well as in the U. S., has been poor and there have been many failures. Lord Aberdeen became governor-general in September. On the other side of us Mexico has been dealing with incipient revolution that at times threatened to become serious. In Central America there have been several attempted revolutions during the year, whose object seemed to be no other than the displacement of one military despot for another. Americans obtained control of the finances of the republic of San Domingo. Affairs have been in a very turbulent state there for the past few weeks. A filibustering expedition against Cuba was unsuccessful. Honduras granted a charter to the Louisiana Lottery Company.

All eyes have, in the past three months, been turned to Brazil, on account of the condition of affairs at Rio de Janeiro. Admiral Mello and the greater part of the Brazilian fleet have invested the harbor and an almost constant duel has been going on between his ships and President Peixoto's forces on shore. It is said the success of Mello means the restoration of the monarchy, and that Brazilians in Europe are intriguing to bring that about. The sympathies of the U. S., are clearly with Peixoto. The sister republic, Argentine, suppressed a revolution of some proportions. Chile is recovering rapidly from the effects of the late revolution there.

Europe.—The home rule bill after a long debate passed the British house of commons, but was defeated in the house of lords. Much distress resulted from the coal strikes and the business depression which was general all over the kingdom. In France there was much excitement early in the year by reason of the Panama trials. Ferdinand and Charles de Lesseps were

among those who were convicted of defrauding the people and sentenced to imprisonment. The Ribot ministry fell in May and the one succeeding it in November; still the people supported the republic, the fall elections being greatly in its favor. The great contest in Germany was over the army bill, which Emperor William and Chancellor Caprivi managed to push through in spite of violent protests. Now they are devising a scheme of taxation to meet the increased expense. Commercial treaties with neighboring nations are being arranged; it is hardly necessary to say that France will not be included and probably Russia will not.

In Spain riots took place from time to time which were probably incited by ultra-Republicans. The anarchists were probably more active here than in any other country in Europe, although France, Germany, and Italy also had considerable trouble with them. The Italian ministry under Giolitti was forced to resign, on account of corruption, and Crispi was reinstated in power. This pleases Germany because Crispi is friendly to the triple alliance. The government will have a hard time to suppress the popular risings in Sicily and at the same time provide money enough to pay the expenses. The great event of the year in Belgium was the extension of the suffrage. The Norwegians are trying to get separate representation abroad, but as yet have accomplished nothing definite. Alexander of Serbia dismissed the regents and took the reins of power himself.

Districts in Russia suffered from famine, fever, and cholera. The visit of the Russian fleet to France caused much gossip; many believe that an alliance was formed between the countries. The Russian railway system is being greatly extended. The government of Austria has taken up the work of extending the suffrage. The Corinth ship canal was opened; another canal across Sleswig-Holstein is building. Among the serious disasters may be included the sinking of the British ship *Victoria*; the destructive gale in England; the dynamite explosion at Santander, Spain, and the earthquake in Zante.

Africa.—Great Britain compelled the khedive of Egypt to dismiss an undesirable ministry and appoint another. A fierce war took place between the Spaniards and Moors in Morocco. It is said that the Mohammedans are trying to incite a "holy war" against the Spaniards. The French finished the conquest of Abomey. In the south the British forces defeated the Matabele king Lobengula. It was reported and confirmed that Emin Pasha had been murdered near the shore of Lake Tanganyika by the Arabs in October, 1892.

Asia, Australia, etc.—Work on the Siberian railroad was pushed forward rapidly by Russia during the year. An anti-foreign riot took place at Ichang, China. Some provinces of the Chinese empire suffered from famine. The dispute between France and Siam resulted in the latter giving up a large portion of territory. Serious religious riots occurred in Bombay. India suspended the coinage of silver. A town in Persia was destroyed by earthquake; 10,000 people lost their lives. A financial panic occurred in Australia; many banks suspended and much distress was caused. Japan seized the Pelew group.

Death Record.—Death has reaped a generous harvest during 1893. Among the prominent persons who have passed away are the following:

Rulers, Statesmen, etc.—Maharajah Duleep Singh, Prince Alexander of Battenburg, Jerome Bonaparte, ex-Pres. Hayes, James G. Blaine, Hannibal Price (minister to Haiti), B. F. Butler, Jeremiah M. Rusk, Justice Lamar. **Churchmen.**—Bishops Brooks, Dwenger, and Knox (Dublin), Dr. Philip Schaff. **Soldiers.**—Marshal Mac Mahon, Gens. Beauregard and Kirby Smith (Confederate), Gen. Abner Doubleday, Gen. Manuel Gonzales (Mexico), Gen. Hiram Berden, Gens. Burke, Crittenden, and A. S. Dally, Rear Admiral Queen. **Authors and Journalists.**—Prof. John Tyndall, Col. E. F. Shepard, Mrs. Martha J. Lamb, M. Taine (historian), Lucy Larcom, Francis Parkman. **Artists, Musicians, Actors, etc.**—Edwin Booth, Leader Cappa (7th regiment band), Charles F. Gounod, Fanny Kemble, James E. Murdoch. **Miscellaneous.**—Dr. Norvin Green (Pres. of Western Union Telegraph Co.), Dr. Werner von Siemens (electrical inventor), Jacob H. Vanderbilt.

The following names may also be added to the above list: John M. Corse, ex-major general, U. S. A.; Rev. Dr. Charles F. Deems; Jules Ferry, president of the French senate; Rufus Hatch, financier; Louis J. Jennings, journalist; Guy de Maupassant, French novelist; Hawley Smart, English novelist; Melancthon Smith, rear admiral, U. S. N.; Senator Leland Stanford, Sir George Tryon, admiral in the British navy; Sir John Abbott, ex-premier of Canada; Lucy Stone, woman's rights agitator; Bishop Lyman, of North Carolina; Hamilton Fish; Anthony J. Drexel, financier.

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